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Valparaiso University Bulletin



GENERAL CATALOG
1981-1982

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CORRESPONDENCE DIRECTORY

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Transcripts, grade reportsRegistrar

Visitors are invited; guides are available. Appointments should be made by writing to Director of Admissions, Valparaiso University, Valparaiso, Indiana 46383, or by calling the Admissions Office of the University. The University number is (219) 464-5000.

For your convenience this bulletin is indexed on page 253.

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ANNOUNCEMENTS FOR 1981-1982 SESSIONS

VALPARAISO UNIVERSITY BULLETIN (USPS 656-460)

Volume 55, July 1, 1981, Number 1

Published four times yearly, July, August, September, and November, by Valparaiso University Assoc., Inc., Valparaiso, Indiana 46383. Second-class postage paid at Valparaiso, Indiana.

The General Catalog Number of the Valparaiso University Bulletin is designed to provide a comprehensive picture of the University. In years when the General Catalog Number is not published, an Announcements Number provides information regarding major changes in courses, calendar, staff, program, and policies.

In addition, separate catalogs are issued relative to the School of Law, the Graduate Division, and the Summer Session.

Note: The material contained in this Bulletin is for information only and does not constitute a contract between the student and the University. The University and its various units reserve the right to revise policies, amend rules, alter regulations, and change financial charges at any time in accordance with the best interests of the institution.

It is the policy of Valparaiso University not to discriminate on the basis of sex, handicap, race, color, religion, age, veteran status, or national or ethnic origin in its educational programs, admissions policies, employment policies, financial aid, or other school-administered programs. This policy is enforced by federal law under Title IX of the Education Amendments of 1972, Title VI of the Civil Rights Act of 1964, and section 504 of the Rehabilitation Act of 1973. Inquiries concerning the application of said Title IX and the published regulations to this University may be referred to the University's Compliance Director of Affirmative Action Plan.

Valparaiso University is authorized under federal law to enroll non-immigrant alien students.

UNIVERSITY CALENDAR FOR 1981-1982

For the College of Arts and Sciences, the College of Business Administration, the College of Engineering, and the College of Nursing.

1981

MINI SUMMER SESSION

May 18-June 11.

SUMMER SESSION

June 15, Monday, 7:30 A.M.; 1:00 P.M. Instruction begins. Late registration.

July 3, Friday. No classes.

August 5, Wednesday. Summer Session closes 5:00 P.M.

August 7, Friday, 9:00 A.M. Deadline for all grades.

FALL SEMESTER

August 22, Saturday, 8:00 A.M. Orientation week for freshmen begins.

August 25, Tuesday, 8:00 A.M. Registration for upperclassmen.

August 26, Wednesday, 8:00 A.M. Registration for freshmen and transfer students.

August 27, Thursday, 8:00 A.M. Instruction begins.

August 27-October 15. Dates for first half short courses.

September 2, Wednesday, 5:00 P.M. Deadline for adding first half short courses.

September 4, Friday, 5:00 P.M. Deadline for adding regular courses.

September 11, Friday, 5:00 P.M. Deadline to file for S/U grade for first half short courses.

September 16, Wednesday, 5:00 P.M. Deadline for withdrawing from first half short courses with grade of W.

September 25, Friday, 5:00 P.M. Deadline to file for S/U grade for regular courses.

October 8-October 14. Adjustment period for adding second half short courses (and arranging course intensification).

October 10, Saturday. Homecoming Day.

October 15, Thursday. Last day to file application of candidacy for the associate's and bachelor's degrees to be conferred in May or August, 1982.

October 16-December 15. Dates for second half short courses.

October 22, Thursday, 5:00 P.M. Deadline for adding second half short courses.

October 28, Wednesday, 5:00 P.M. Deadline for withdrawing from regular courses with grade of W.

October 30, Friday, 5:00 P.M. Deadline to file for S/U grade for second half short courses.

November 5, Thursday, 5:00 P.M. Deadline for withdrawing from second half short courses with grade of W.

November 20, Friday, 6:30 P.M. Thanksgiving recess begins.

November 30, Monday, 8:00 A.M. Thanksgiving recess ends.

December 15, Tuesday, 5:00 P.M. Deadline to officially withdraw from the University for fall semester.

December 15, Tuesday, 10:00 P.M. Instruction ends.

December 16, Wednesday. Reading Day.

December 17, Thursday, 8:00 A.M. Final examinations begin.

December 22, Tuesday, 12:30 P.M. Final examinations end. Semester ends.

December 23, Wednesday, 1:00 P.M. Deadline for all grades.

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SPRING SEMESTER

January 11, Monday. Orientation for new students.

January 12, Tuesday, 8:00 A.M. Registration for upperclassmen.

January 13, Wednesday, 8:00 A.M. Registration for all freshmen and transfer students.

January 14, Thursday, 8:00 A.M. Instruction begins.

January 14-March 4. Dates for first half short courses.

January 20, Wednesday, 5:00 P.M. Deadline for adding first half short courses.

January 22, Friday, 5:00 P.M. Deadline for adding regular courses.

January 29, Friday, 5:00 P.M. Deadline to file for S/U grade for first half short courses.

February 3, Wednesday, 5:00 P.M. Deadline for withdrawing from first half short courses with grade of W.

February 12, Friday, 5:00 P.M. Deadline to file for S/U grade for regular courses.

February 25-March 3. Adjustment period for adding second half short courses (and arranging course intensification).

March 5-May 11. Dates for second half short courses.

March 5, Friday, 6:30 P.M. Spring recess begins.

March 22, Monday, 8:00 A.M. Spring recess ends.

March 25, Thursday, 5:00 P.M. Deadline for adding second half short courses.

March 31, Wednesday, 5:00 P.M. Deadline for withdrawing from regular courses with grade of W.

April 2, Friday, 5:00 P.M. Deadline to file for S/U grade for second half short courses.

April 8, Thursday, 5:00 P.M. Deadline for withdrawing from second half short courses with grade of W.

April 9, Good Friday. No classes.

April 15, Thursday. Last day to file application of candidacy for the associate's and bachelor's degrees to be conferred in December, 1982.

April 23, 24, and 25, Friday, Saturday, and Sunday. Spring Festival begins 4:00 P.M. on Friday.

May 11, Tuesday, 5:00 P.M. Deadline to officially withdraw from the University for spring semester.

May 11, Tuesday, 10:00 P.M. Instruction ends.

May 12, Wednesday. Reading Day.

May 13, Thursday, 8:00 A.M. Final examinations begin.

May 18, Tuesday, 12:30 P.M. Final examinations end. Semester ends.

May 19, Wednesday, Noon. Deadline for grades for all candidates for all degrees.

May 21, Friday, 5:00 P.M. Deadline for all other grades.

May 23, Sunday. 108th Annual Commencement.

Certain other dates are observed annually by the University: Reformation Day, Ash Wednesday, and Ascension Day.

INTRODUCTION
CAMPUS
ACADEMIC PROFILE
STUDENT LIFE
ADMISSION



INTRODUCTION

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VALPARAISO UNIVERSITY. The University is a medium-sized, private, church-related, coeducational university which includes seven units: the College of Arts and Sciences, Christ College, the College of Business Administration, the College of Engineering, the College of Nursing, the School of Law, and the Graduate Division. In addition, the University offers liberal arts courses in the Hospital Schools of Nursing in Lutheran hospitals in St. Louis, Cleveland, and Fort Wayne. The University has a total student enrollment of over 4,000, a full-time on-campus enrollment of over 3,500, and a faculty which numbers over 270. The educational program utilizes a plant of over 70 instructional and residential buildings, located on a campus of 310 acres.

Valparaiso University operates within a religious tradition which recognizes no hostility between the life of the mind and the life of the spirit. Instead, with its emphasis upon Christian freedom and upon the sacredness of vocation, it liberates men and women so that they may explore any idea, any theory without having to fear that somewhere along the line they will have to choose between faith and intellectual honesty.

As the nation's largest Lutheran-affiliated institution of higher education, Valparaiso University is large enough to provide a broad range of academic programs and collegiate experiences; yet, in its seven units, it is oriented to small classes and individual guidance. Through its commitment to academic excellence, Valparaiso is truly a university; yet, by its rootage in Christian heritage, it shares the message of the church.

OBJECTIVES. Valparaiso University aspires to serve the growth of whole men and women. As thought, feeling, and expression are always involved in human action, an educational philosophy or program which neglects any of these factors must in some degree be inadequate. In common with other institutions of higher learning, Valparaiso University is concerned with the preservation and application of the accumulated knowledge of mankind. As a church-related institution, the University sees knowledge of the Christian tradition as essential to the educated person; for this reason it places emphasis on the religious heritage of mankind, particularly on the Christian heritage as grasped by the Lutheran Church, which constitutes the largest body of Protestant Christians in the world.

ACCREDITATION. Valparaiso University is fully accredited by the North Central Association of Colleges and Schools for the offering of bachelor's and master's degrees. The undergraduate and graduate programs for the preparation of teachers are approved by the Indiana Department of Public Instruction; the undergraduate program is also accredited by the National Council for Accreditation of Teacher Education. Valparaiso's offerings are further accredited by the National Association of Schools of Music and approved by the American Association of University Women.

The School of Law is a member of the Association of American Law Schools and is approved by the American Bar Association.

The College of Engineering is accredited in its programs of Civil Engineering, Electrical Engineering, and Mechanical Engineering by the Accredita-

tion Board for Engineering and Technology, and is an institutional member of the American Society for Engineering Education. The College of Engineering has a local chapter of Tau Beta Pi, the national engineering honorary fraternity, on the campus.

The College of Nursing is accredited by the Indiana State Board of Nurses' Registration and Nursing Education and by the National League for Nursing.

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The University is a member of the American Association of Colleges for Teacher Education, the American Council on Education, the Association of American Colleges, the Council on Social Work Education, the Lutheran Education Association, and the American Association of Colleges of Nursing.

LOCATION. Valparaiso, Indiana, the seat of the University, is forty-four miles southeast of Chicago on U.S. 30 and Indiana 49 and 2. Situated eight miles south of Interstate 80-90 (Indiana Toll Road) and eleven miles east of I-65, it is a residential city of twenty thousand inhabitants. Porter County, of which it is the county seat, adjoins the industrial communities of the Calumet District. The community is served by Greyhound and Trailways Bus Lines and the national railway system. Commuter service is available from the local airport to the major airports in Chicago. Direct limousine service between Valparaiso and O'Hare Airport is also available.

The location of Valparaiso offers many advantages. Students of physical geography and biology profit by the fact that the city is situated on the crest of the Valparaiso Terminal Moraine and that it is within a few miles of the Indiana Dunes, Lake Michigan, and the marshes of the Kankakee River region. Students of the sciences, both physical and social, and of commercial studies find the nearness of the great Calumet Industrial District and of Chicago a great advantage. Field trips and inspection trips form a regular part of the course of study in several departments.

Since Chicago can be reached in approximately an hour by car or railroad, many students also take advantage of the cultural opportunities offered by the great libraries, museums, art galleries, and concert halls of that city.

Students interested in outdoor life find the small lakes nearby and Lake Michigan, which is only twelve miles away, a great advantage.

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HISTORICAL BACKGROUND. Valparaiso University's history has three distinct phases.

Valparaiso Male and Female Academy was founded in 1859 as one of the first coeducational institutions in our land.

After reverses caused by the Civil War, classes were suspended in 1869, but the institution was revived by Henry Baker Brown as the Northern Indiana Normal School and Business Institute in 1873. "Mr. Brown's School," a flourishing private, proprietary institution, was renamed Valparaiso College in 1900 and rechartered as Valparaiso University in 1907.

A new chapter in the history of the University was begun in the summer of 1925, when the University was purchased by the Lutheran University Association. This Association, an Indiana corporation composed of men and women affiliated with the Lutheran Church-Missouri Synod, now owns and controls the University.

The oldest current unit of the University is the College of Arts and Sciences, dating back to the founding of the institution in 1859. The School of Law was founded in 1879 as the Northern Indiana Law School and became part of the University in 1905. The reorganized College of Engineering dates back to 1949. Graduate Division offerings first appeared in 1963. The Department of Business and Economics became the College of Business Administration in 1964. In 1966, the honors program of the University was reorganized into Christ College, a separate honors unit in the institutional structure. The newest school is the College of Nursing, inaugurated in 1968.

MOTTO. Valparaiso University's emphasis on the cultivation of the whole person finds expression in its motto: "In thy light do we see light."

Nagel

The ministry of Word and Sacraments centers in the Chapel of the Resurrection. A ministry is carried on also in the residence halls.

Students and faculty participate with the Dean and staff of the Chapel of the Resurrection in preparing and carrying through a rich range of services. On Sunday there is Morning Worship and the celebration of Holy Communion. Monday through Friday the University has appointed 10:10 for Morning Prayer when members of the University identify themselves as Christ's people serving him in their multifarious callings. Evening Prayer is every evening at 10:10. Every evening in the Dean's room there is personal counseling.

STUDENT CONDUCT. When a student enrolls at Valparaiso University, he/she thereby accepts the rules, regulations, and procedures as found in the University Catalog and the *Student Handbook*. Conformity to the traditions and regulations of the University is expected. The University reserves the right to suspend or dismiss any student at any time when, in the judgment of its authorities, that action is deemed to be in the best interests of the institution. Such a decision will normally be made only by the President of the University on the recommendation of the Campus Judiciary Board.

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mann

THE HONOR SYSTEM. The student-initiated Honor System has a long history at Valparaiso University and is a strong distinguishing characteristic of the institution. It is in every way consistent with the highest principles of Christian ethics and morality. In sanctioning the Honor System, the University presumes that students are able and willing to accept the duties and responsibilities of honorable conduct for the sake of the Valparaiso University community. Before he/she can be admitted to the University, every entering student must sign and submit a statement that he/she understands the Honor System we have and is aware that all his/her academic work must be submitted under his/her signature and that he/she has done this work in agreement with the Honor Code.

Under the Honor System all written examinations, of any length, are taken in an atmosphere free from the surveillance of a proctor. Every student has the responsibility to keep academic work free of dishonesty, that is, to neither give nor receive unauthorized aid. Non-tolerance of the use of unauthorized aid is a further responsibility which is inherent in the Honor System. Each student must report to the Honor Council any violation of the System of which he/she becomes aware. The student is usually asked to sign a pledge on work done for academic credit to the effect that no unauthorized aid was given, received, or tolerated.

The Honor Council is an educational, preventive, remedial, and judicial body with the duty of maintaining the Honor System in the academic community. The Council hears alleged Honor Code violations and then makes a recommendation to the President of the University regarding guilt or innocence and any penalty. The Council is composed of students who are chosen by the incumbent members subject to the approval of the President of the University.

The faculty reserves the right to abrogate the Honor System at any time.

CAMPUS

Valparaiso University is proud of its spacious campus of 310 acres on which seventy buildings are located. Many of them are very modern, reflecting the recent growth and expansion of the University. Many bear the names of the generous benefactors whose active interest in the University has made such growth possible.

Two buildings form the center of the campus: **The Chapel of the Resurrection** and **The Henry F. Moellering Memorial Library**. The Chapel seats over 3,000 persons. It was dedicated on September 27, 1959, the gift of many members of the Lutheran Church—Missouri Synod, alumni of the University, the Valparaiso University Guild, and many other friends.

The Baptistry, at the foot of the circular staircase leading from the narthex, includes a five and one-half ton font made of a single block of Rockville granite, a paschal candlestand, and a 17-foot hanging sculpture made of torch-fired bronze. The Music Window, crafted in Cologne, Germany, and rising more than 55 feet in the center front of the Chapel, is the gift of Mr. and Mrs. Richard E. Meier. The Chancel Windows, also crafted in Cologne, are gifts of Mr. and Mrs. Alfred C. Munderloh. The Fred and Ella Reddel Memorial Organ has a movable console and 70 ranks, with potential for expansion; among its unique features is a 61-pipe copper Trompeta Real. The pulpit was given by the family of the Rev. Louis G. Nuechterlein as a memorial to his ministry. The altar and altar rail were a gift of Mr. and Mrs. Len C. Heine. The *Christus Rex*, a symbolic representation of Christ's victory over death, is a memorial to Miss Elizabeth Selle, a former student at the University. The Chapel office, at the west side of the narthex, and the Baptistry were gifts of Mr. and Mrs. A. J. W. LeBien.

The August H. and Ella Louise Brandt Campanile, flanking the Chapel and towering to a height of 143 feet, carries a nine-bell chime cast in Holland and installed as a gift of the University Guild in 1980.

The library, dedicated on December 6, 1959, is a gift of Mrs. Henry F. Moellering of Fort Wayne, Indiana, and her children. Supplementary funds were provided by the Lilly Endowment, Inc., of Indianapolis and the Kresge Foundation of Detroit. An addition was completed in the fall of 1969. A two-story structure with three stack levels, the original library provides reading space for 500 persons and shelf space for more than 200,000 volumes. The addition provides space for 160 individual study carrels and shelf space for 70,000 volumes.

Not far from these two buildings is the **Valparaiso Union**. Completed in 1955, it contains student offices, lounges, meeting rooms, recreation facilities, a short-order counter, and dining and banquet rooms. The Union, a center of activity for the campus community, is designed to serve as an informal educational agency through its programs and facilities and to provide a rounded and wholesome social, cultural, and recreational program.

Surrounding the center of the campus are the major academic buildings.

Julius and Mary Neils Science Center, a gift of the Neils family, contains offices, laboratories, and research facilities for the Departments of Biology and Chemistry. The first unit was completed in 1967. The second unit, called the Oswald W. and Erna Klingsick Hall Addition, was completed in 1973 and houses new facilities for the Department of Physics and contains several general classrooms and a large auditorium.

Gellersen Engineering-Mathematics Center, made possible by the gift of William Gellersen, was first occupied in 1968 and contains all offices, classrooms, and laboratories of the College of Engineering and the Department of Mathematics and Computer Science.

Dr. Richard E. and Oma Meier Hall is a one-story brick building, completed in 1968, which has 18 classrooms, a language laboratory, and offices for faculty members.

Ewald H. Mueller Hall houses the University's Christ College (honors program). It also contains the President's office, the office of the Dean of Christ College, faculty offices, classrooms, seminar rooms, lecture-theatre room, and a small dining-meeting room. It was first occupied in 1970.

William E. Urschel Hall, the College of Business Administration building, is a two-level structure first occupied in the fall of 1979. It contains offices, classrooms, and an auditorium seating 131.

Wesemann Hall, the School of Law building, which was first occupied in 1963, was named for benefactors Mr. and Mrs. Adolph H. Wesemann. The library wing, containing space for approximately 87,000 volumes, was enlarged in 1976 and this addition was named after benefactors Clara and Spencer Werner.

Two academic buildings are somewhat removed from the center of the campus. **LeBien Hall**, named for benefactors Mr. Alfred J. W. and his wife, Elfrieda M. LeBien, houses the College of Nursing and is located virtually next to Porter Memorial Hospital on the northwest edge of the campus. Next to it is **J. W. Miller Hall**, the home of the Department of Education.

Nine residence halls are found on the campus: **Dau, Kreinheder, Alumni, Scheele, Brandt, Wehrenberg, Lankenau, Guild, and Memorial Halls**. **Deaconess Hall**, owned by the Lutheran Deaconess Association, is also located centrally on the campus and, in addition to its other facilities, offers housing to undergraduate women. The room only fee for these residence halls is \$445.00 per semester.

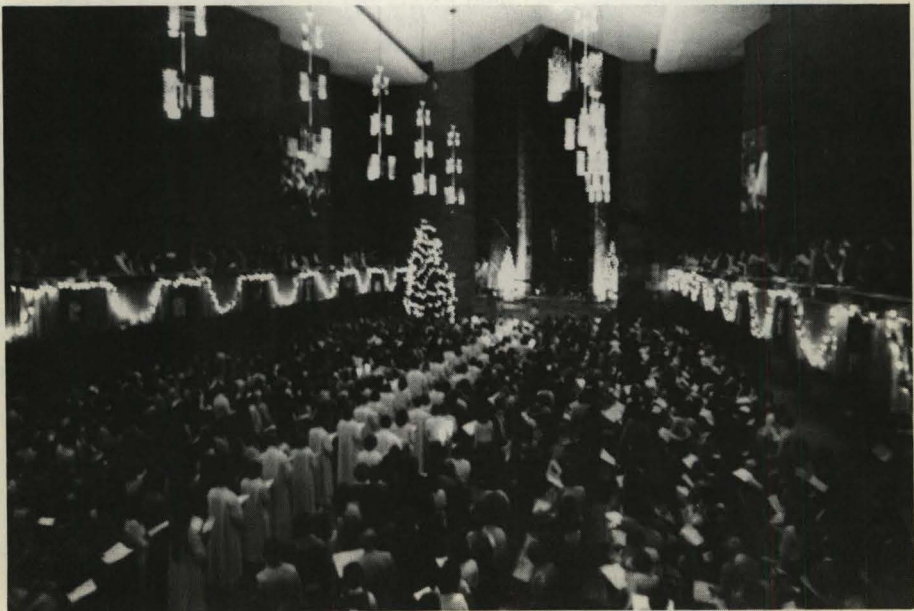
The buildings we have mentioned are all part of the central campus. Eastward, across Indiana Highway 49, a 58-acre extension was developed in 1969 with the construction of eight all-purpose intramural fields, a hard sur-

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face track, and a varsity baseball facility. The main athletic and recreational facilities are still found at the **Gymnasium** and the nearby athletic fields and facilities, west of the main academic and residential complex. This facility was constructed in 1939, enlarged in 1963, and will be much expanded and enhanced by additional construction planned for the immediate future.

As one proceeds westward from **Guild** and **Memorial Halls**, a number of smaller buildings may be found which house various academic and administrative activities. The **Guild Center of Admissions**, a gift of the Valparaiso University Guild, provides space for the offices of admission, financial aid, and career placement. The **Loke Home Economics Center**, the gift of Mr. and Mrs. Edgar William Loke and other friends, was first occupied in 1968. **Kroencke Hall**, across from the Gynasium and built in 1952, has academic facilities and a Little Theater. **Dickmeyer Music Hall**, the **Art-Music Building**, and the **Journalism Building** form a cluster of facilities in heavy use by faculty and students. **Graland Hall** serves the Office of Public and Alumni Affairs.

Proceeding further westward, passing by a row of fraternity houses, one reaches the western end of the campus, Heritage Park. This is the historical campus on which the University was built nearly a hundred and twenty-five years ago. It is a beautiful park with many old trees. Commencement exercises are held there each spring. The old buildings are still in use. The Department of Art has spacious studios and workrooms; the Department of Psychology has laboratories; and many faculty and administrative offices may be found there.



ACADEMIC PROFILE

DEGREES AND PROGRAMS. In the 1980-1981 academic year, 1,873 students enrolled in the College of Arts and Sciences, 818 in the College of Business Administration, 519 in the College of Engineering, 335 in the College of Nursing, and 361 in the School of Law for a total of 3,906. In addition, 164 were enrolled in the Graduate Division.

Through its various divisions, the University confers nineteen different degrees. The minimum number of credits required for graduation varies with the curricula chosen, as shown in the following summary:

Degrees	Credits Required
Associate in Science	60
Bachelor of Arts (except in combined curricula)	124
Bachelor of Music	128-134
Bachelor of Music Education	134-138
Bachelor of Science (except in combined curricula)	124
Bachelor of Science in Education	124
Bachelor of Science in Fine Arts	124
Bachelor of Science in Home Economics	124
Bachelor of Science in Physical Education	124
Bachelor of Social Work	124
Bachelor of Science in Business Administration	125
Bachelor of Science in Civil Engineering	138
Bachelor of Science in Electrical Engineering	138
Bachelor of Science in Mechanical Engineering	138
Bachelor of Science in Nursing	124
Juris Doctor	90
Master of Arts in Liberal Studies	30
Master of Education	33
Master of Music	30

The various divisions of the University offer 43 programs leading to these degrees. By far the greater number, 36, are offered through the College of Arts and Sciences. The undergraduate programs available are outlined under the department or program headings of each of the colleges as listed in this Bulletin.

GENERAL EDUCATION. A student's course of studies leading to a degree will generally consist of two parts. One is called general education. The other is an area (or areas) of specialization, frequently referred to as major and minor fields of concentration.

Over the years, Valparaiso University has developed a reputation for its strong emphasis on general education. These required courses and areas of study provoke students to investigate and consider the phenomena of man, society, and the physical world. They invite students to reflect on a common cultural heritage and to inquire into the new world developing in our own lifetime. They pose central human questions concerning truth, justice, and the dialogue between God and man.

The general education program for the College of Arts and Sciences is set forth in detail on pages 30-33. Each professional college adapts part of this program as a basis for its own course of professional studies, assuring that every student has a foundation of studies in the liberal arts.

RB **ADVISORY PROGRAM.** Each entering student is assigned to an academic adviser to assist him/her in selecting a curriculum, meeting University requirements, and making the most of his/her studies.

In the College of Arts and Sciences, a student who has not declared a major is assigned a general adviser. As soon as a student declares a major, he/she is assigned to his/her major department for advising. The major field of study should be chosen by the beginning of the junior year at the latest. Students who are interested in teacher certification should declare that intention at the beginning of the freshman year if they desire to complete their degree and certification requirements in four years. The failure to take courses which anticipate the requirements of some fields of study may lengthen the time needed to complete degree requirements.

Each student must have the schedule signed by his/her academic adviser at the beginning of each semester before the schedule is filed with the Registrar. Subsequent changes in the schedule must also be signed by the student's adviser. The signature of an academic adviser simply indicates that the adviser has counseled the student.

RB **ACADEMIC GOVERNANCE.** Through the University Senate, which consists of faculty, students, and administrators, students share in the development of academic programs and policies, especially in the area of general education and general academic regulations. As is customary in higher education, the faculty takes final responsibility for all academic programs, especially those which require professional certification.

RB **FACULTY.** The approximately 270-member faculty of the University represents a rich variety of graduate study and personal experience in a broad range of fields. The student-faculty ratio is comparatively low. While the University includes a Graduate Division, the graduate students are not used for teaching undergraduate courses. With few exceptions, the teaching program is carried out by full-time faculty members. The basic emphasis at Valparaiso is thus on quality teaching. However, faculty members are encouraged to do research in their respective fields to develop further teaching competence.

John-son **UNIVERSITY LIBRARY FACILITIES.** The Henry F. Moellering Memorial Library, situated directly across from the chapel, is the general library of the University. It serves the students, faculty, and staff of the campus community with a collection of 260,000 bound volumes, 66,000 microforms, and with the regular receipt of 1,450 periodical journals. In addition, the library maintains a separate collection of 110,000 government documents and a collection of 85,000 maps. These have been developed primarily through depository status with the U.S. Superintendent of Documents, the State of Indiana, the U.S. Geological Survey, and the Defense Map Service. Musical and literary recordings are available in the Music Record Library, a collection of 4,000 records and tapes. All materials are available to users on open shelves with the exception of reserved books, the University Archives, and rare books. Reading rooms are air conditioned and seating is distributed throughout the building.

The Instructional Materials Center at Moellering Library offers assistance to instructors and students in the preparation of instructional materials using AV equipment.

The library assumes an active role in interlibrary cooperative efforts and

holds memberships in the Indiana Cooperative Library Association, the Ohio Colleges Library Center, the Northwest Indiana Area Library Services Authority, the Midwest Health Science Library Network, and the Metropolitan Periodical Service. Through these relationships, the Interlibrary Loan Department provides services from other libraries with maximum efficiency. With the recent addition of a TI 785 data terminal, the staff of the library is now providing on-line bibliographic searching for faculty and students.

The library of the School of Law, with over 125,000 holdings and a LEXIS computer system, is located in Wesemann Hall, and a curriculum library is maintained in the J. W. Miller Hall.

COMPUTER FACILITIES. The Computer Center of the University, used for academic purposes only, is equipped with a Hewlett-Packard 3000-II digital computer system. It is housed in the Gellersen Engineering-Mathematics Center together with key punches and terminals. It is available for use by members of all colleges. Key punches and terminals are also located at various key points around the campus.

UNIVERSITY ART GALLERIES AND COLLECTIONS. The principle gallery and the collections of almost 800 works of art are located in the Henry F. Moellering Memorial Library. The core collection—the Sloan Collection of American Paintings—and a fund for its maintenance, expansion, and educational use were gifts to the University from Spencer and Percy H. Sloan in memory of their parents, Junius R. and Sara L. Spencer Sloan. Works from these collections are on constant display in the Moellering Library and elsewhere on campus, making a significant contribution to cultural life. In addition, the Galleries maintain a schedule of visiting exhibitions and related programs representing various aspects of the world of art.

SPECIAL EDUCATIONAL OPPORTUNITIES

International Studies Semester. The University conducts an International Studies Program in which a student has the opportunity to study for one semester at one of the University's overseas centers. At the present time, student centers are maintained in Cambridge, England, and Reutlingen, Germany. Each semester approximately twenty undergraduate students may study at each center. These centers offer the students a chance to broaden their knowledge and expand their experience through extensive travel, personal contact, and day-by-day living in a different cultural environment. Inherent in this experience is the development of individual freedom, responsibility, and independence.

Supervising each center is a director from Valparaiso's faculty who secures residences, enlists faculty members, and instructs in two courses. Each center's curriculum is based upon the geographical and cultural setting of the area. Students are required to take at least twelve credit hours of the fifteen offered at each center, and independent-study projects may also be arranged. The courses are taught by the director and local faculty. All credit hours are considered as residence work applicable to graduation from Valparaiso University. Students register at Valparaiso and pay the normal tuition, room without board, general fees, and an additional travel expense which covers air travel and other transportation costs to and from either the Cambridge or Reutlingen Center.

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Other Study Abroad. A variety of other opportunities also exist in which students may spend a summer, semester, or year in a foreign setting as participants in one of the many established programs sponsored by other colleges and organizations. Subject to certain restrictions, students receive credit for this study, which then becomes an integral part of their total program for the Valparaiso University degree. Therefore, students wishing to make their own arrangements for study abroad or to study under programs sponsored by other colleges and organizations are responsible for consulting with faculty advisers, the Office of the Registrar, and the Dean of their College. Unless prior departmental approval is sought and granted, a student may not be permitted to receive credit for off-campus study. Detailed information on off-campus study regulations, and brochures on various programs of study abroad are available at Meier Hall.

Washington Semester Program. This program, established by an agreement concluded between the American University, Washington, D.C., and Valparaiso University, makes it possible for students to spend one semester of their junior year (or some other semester by arrangement) at the American University. The purpose of the program is to give the selected students an opportunity to see at first hand the intricacies of the operation of the national government and to obtain an intimate contact with the broad range of governmental and political activity through field visits, consultation with officials, and evaluating sessions led by academic instructors. The program includes semesters on National Politics, Urban Politics, Science and Technology, American Cultural Studies, International Development, Foreign Policy, Economic Policy, and Justice. Only students who have had the course Political Science 1 will be considered candidates for this program.

Valparaiso students register at Valparaiso for the Washington Semester and pay to Valparaiso University the usual tuition and other fees of American University. Expenses for travel, meals, and lodging are paid directly by the students. The Washington Semester gives full credit toward graduation from Valparaiso University. Not open to students who have participated in the Semester on the United Nations.

For information concerning the Washington Semester Program Loan Fund, see page 242.

Urban Affairs Semester Program. This Program, established by an agreement with the American University, Washington, D.C., makes it possible for selected students to spend one semester of their junior year (or some other semester by special arrangement) at the American University. The program is designed to provide students with a broad introduction to urban problems and programs and to examine the intergovernmental characteristics of policy-making. It has four objectives: (1) to provide a solid academic base upon which a student can develop his/her own unique and personal educational goals, (2) to take advantage of the unique facilities and environment of the nation's Capital, (3) to use the practical to build toward the theoretical, particularly in the writing of integration papers and the research project, and (4) to provide contact in seminars with officials of local, state, and national government, political parties, interest groups, and the press.

Only students who have had the courses in Political Science 1 and 2 will be considered candidates for this program.

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Valparaiso students register at Valparaiso for the Urban Affairs Semester and pay to Valparaiso University the usual tuition and other fees of American University. Expenses for travel, meals, and lodging are paid directly by the students. The Urban Affairs Semester gives full credit toward graduation from Valparaiso University. Not open to students who have participated in the Washington Semester or the Semester on the United Nations.

Semester on the United Nations. This Semester, established by an agreement with Drew University, Madison, New Jersey, makes it possible for selected students to spend one semester of their junior year (or some other semester by special arrangement) at Drew University. The curriculum revolves about on-the-scene observations and analyses of the United Nations through direct contact with the United Nations meetings and headquarters. For two days each week of the semester the student will be in the proximity of the United Nations in New York under the supervision of a member of the Drew University faculty.

Valparaiso students register at Valparaiso for the Semester on the United Nations and pay to Valparaiso University the usual tuition and other fees of Drew University. Expenses for travel, meals, and lodging are paid directly by the students. The Semester on the United Nations gives full credit toward graduation from Valparaiso University. Not open to students who have participated in the Washington Semester Program. Only students who have had the course in Political Science 44 will be considered candidates for this program.

For information concerning the Valparaiso Branch of the American Association of University Women Loan Fund, see page 242.

American Schools of Oriental Research. The University is a corporate member of this organization, which has institutes in Jerusalem, Amman, Baghdad, and Cyprus. Several summer training programs in archaeology are open to undergraduate students at Valparaiso University through these institutes.

Chicago Urban Semester. Through Christ College and with the cooperation of the Associated Colleges of the Midwest, the University offers to all students a semester long program involving residence in Chicago. Students admitted to the program may earn from 13-16 credits, including closely supervised independent study. Grades will be given on an S/U basis.

Adjunct Activities of the Off-Campus Divisions. The University maintains an instructional staff in each of the following hospital schools of nursing: Lutheran Medical Center School of Nursing, St. Louis, Missouri; Lutheran Medical Center School of Nursing, Cleveland, Ohio; and the Lutheran Hospital School of Nursing, Ft. Wayne, Indiana. In these schools, as part of cooperative programs, the University teaches certain courses in natural sciences, social sciences, English, and religion. University course work done in these hospital schools of nursing may be used to meet part of the residence requirements of the University, provided that the student meets the University requirements for admission as a fully matriculated student.

Honors Work and Independent Study. The University encourages honors work and independent study. Each college has its own particular approach to this form of instruction, and information should be sought from deans or department officers. Especially interesting is an opportunity for a group of

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students to develop a topic or area of studies to be approached as a group under the sponsorship of a faculty member. This independent group study program is administered through the Dean of the College of Arts and Sciences but is open to all students. More detailed information is given on page 46.

Christ College. Christ College is itself one of the special educational opportunities available to all students at the University. It is an honors college which offers honors courses as well as special courses and seminars which probe topics of interest not normally found in a single department. The College has a core community of students who follow a special course of studies in the area of general education but welcomes all students to inquire into its program and to participate in it. Details are given beginning on page 146.

Mini Summer Session. This session of three and a half weeks is offered at the end of the Spring Semester. These courses are specially designed to fit the concentrated time period and carry with them usually three hours of credit. Details are available in the appropriate bulletin.

Summer Session. Students enrolled in this session normally earn nine semester hours of credit. These credits have the same value as those earned during the regular academic year and are transferable. The combination of the Mini and Summer Sessions permits a student to earn nearly a semester of credits during the summer months. This opportunity is available to students who wish to accelerate their programs or to new students who desire to begin work on the academic level in advance of the Fall Semester. Details are available in the appropriate bulletin.

STUDENT LIFE

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Valparaiso University offers its students first and foremost a rich academic fare of high quality. Yet a residential university offers much more than high quality academic programs to its students. In its common life outside of the classroom, members of the University grow in leadership and personal qualities, activities which are basic to the educational philosophy of Valparaiso. Therefore, the University encourages a wide range of opportunities in which students may use their freedom and time to reach their fullest potential, and to acquire a sense of responsibility toward each other and to society. These opportunities lie in the activities of student government, the dozens of clubs and associations which exist on campus, the intercollegiate and intramural athletic activities, and the social and cultural programs which fill each semester.

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THE VALPARAISO UNION is the center of student activity. The Union is the living room of the campus; a place to relax, meet informally with other students as well as members of the faculty and staff, or to bring visitors.

Among the many facilities of the Union is the Cafeteria and Snack-bar, known as Ye Olde Grail, which offers a variety of popular food items including homemade pizza, make your own sandwiches and salads, and submarine sandwiches. Private dining rooms are also available for special dinners or luncheons.

Other facilities include the Great Hall, where a variety of meetings, banquets, and student activities take place. There is also a Recreation Center

with four bowling alleys, pool tables, ping pong tables, foosball, and a variety of electronic games.

Offices of the Student Senate and its various committees, including the Union Board, *The Beacon* (the yearbook) and *The Lighter* (the student Literary Magazine) are also housed in the Union.

The meeting rooms in the Union are used by all campus organizations, and many services are offered to various campus groups to take care of their complete meeting needs.

The Information Desk at the Union offers a number of services including candy, cigarette and sundry concession, check-out of music listening headphones and table games, and ticket sales for various campus events including bus tickets to Chicago.

All in all, the Union becomes "the home away from home" for many students.

The Director of the Valparaiso Union acts as general adviser to the Union Board and other organizations concerned with the overall Student Activities Program. Students take an active role in providing a well-balanced, diversified offering of student activities through the eleven committees of the Union Board including: Outdoor Recreation, Concerts, Dances and Coffeehouses, Travel, Production, Hospitality, Special Events (Homecoming, Winter Weekend, Spring Weekend), Tempo (Lectures and Debates), Mini Courses, House, Films, and Publicity. In the various residence halls, there is a social program under the supervision of the residence hall directors and their social program committees. Sororities and fraternities have numerous social events. Various clubs on campus, centered around specific majors, also have a variety of activities. The center of student activity is the Valparaiso Union. Parties, picnics at the Indiana Dunes, ski trips, concerts by well-known professional groups, current films, and a host of other activities all contribute to an exciting and well-rounded activities program.

STUDENT ACTIVITIES.

The Student Senate is empowered by the Instrument for Internal Governance of the University with executive, legislative, and judicial powers over the student body. It is composed of upper class student representatives and officers elected in the spring and freshman representatives elected in the fall. The Student Senate gives students the opportunity to assume the privileges and responsibilities of self-government. It also coordinates the five standing committees of Publications, Broadcasting, Residences, Off-Campus and Commuter Students, and Union Board.

The Committee on Publications is responsible for policies and regulations of the University's student publications. These include *The Beacon*, the University yearbook; *The Lighter*, literary magazine; and *The Torch*, campus newspaper.

The Committee on Broadcasting is responsible for the policies and regulations of the campus radio station, WVUR (89.5 FM).

The Committee for Off-Campus and Commuter Students is designed to serve as a clearing house for information and services to off-campus students. Responsibilities include: providing forms to match potential roommates; acquiring information on available housing; maintaining correspondence

with local, state, federal, and private agencies; and providing programs, services, and information to commuter students.

The Valparaiso Union Board develops, presents, and coordinates social, recreational, and educational events and programs to broaden student acquaintances and improve student life, and establishes policies for the use of the Valparaiso Union.

The Committee on Residences has responsibility for the policies and procedures regarding residence hall use.

Academic or Professional Organizations: American Society of Civil Engineers, American Society of Mechanical Engineers, Student Business Association, Chemistry Club, Engineering Society, Geography Club, Home Economics Club, Institute of Electrical and Electronic Engineers, Phi Mu Alpha—Music men, Physics Society, Pre-Med Society, Psychology Club, Sigma Alpha Iota—Music women, Social Services Club, Sociology Club, University Players, Varsity Club.

Honorary Societies: Alpha Lambda Delta—all freshmen, Alpha Pi—Senior men, Alpha Psi Omega—Drama, Aurora—Junior women, Eta Sigma Phi—Classics, Gamma Theta Upsilon—Geography, Junior Men's Honor Guard, Kappa Delta Pi—Education, Mortar Board—all seniors, Omicron Delta Epsilon—Economics, Phi Alpha Epsilon—Journalism, Phi Alpha Theta—History, Pi Delta Phi—French, Pi Sigma Alpha—Political Science, Sigma Xi—Research, Tau Beta Pi—Engineering, Alpha Epsilon Delta—Pre-Medical and Pre-Dental, Nursing Honor Society.

Miscellaneous Organizations: Gamma Delta, Gold Splash—Swimming, High-lights, Women's Recreation Association, Young Democrats, International Relations Club, Mental Health Club, Young Republicans, and Alpha Phi Omega.

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Intercollegiate and Intramural Athletics. The programs of intercollegiate and intramural athletics are integral parts of the total educational program, affording all students the opportunity to participate in a variety of physical activities, and providing those students who have special aptitudes in certain sports opportunities to achieve a high level of mastery.

Participation with proper guidance will give the students the chance to develop many sound qualities and attitudes: respect for discipline and rules and constituted authority, valuing of teamwork, capacity to lead and direct, the ability to act effectively under stress, and self-discipline in times of achievement.

For the non-participant—students, faculty, community, supporting constituency, and other friends of the University—the program of intercollegiate athletics serves as a rallying point providing a common interest through which loyalty, a spirit of unity and high morale can be created on and off the campus.

The women's division of the intercollegiate athletic program offers participation in basketball, gymnastics, field hockey, swimming, tennis, and volleyball. Membership is maintained in the Indiana Association of Intercollegiate Athletics for Women, Midwest Association for Intercollegiate Athletics for Women, and the Association for Intercollegiate Athletics for Women.

The men's division sponsors intercollegiate competition in baseball, basketball, cross country, football, golf, swimming, tennis, track, and wrestling,

and holds membership in the Indiana Intercollegiate Athletic Association, and the National Collegiate Athletic Association. All teams, with the exception of basketball, which operates as a major independent Division I program, are also members of the Heartland Collegiate Conference.

The Director of Athletics is responsible to the President of the University, through the Vice President for Public and Alumni Affairs. Participation policies are established by the University Senate on recommendation of its Committee on Intercollegiate Athletics.

The University is committed to a thorough and complete program of intramural athletics to provide wholesome and stimulating athletic activity for every student. All students are invited to participate in the many different team and individual activities which are scheduled throughout the academic year. Students are also encouraged to participate in the planning and conduct of the intramural programs. Co-recreational activities are included in this program.

Although the University provides an experienced staff and takes every precaution to avoid injury to all participants in the intercollegiate and intramural programs, the University assumes no responsibility for accidents and students participating in intramural and intercollegiate athletics do so at their own risk.

The University Theatre, under the supervision of the Department of Speech and Drama, provides a means for creative activity in curricular and extracurricular areas. The work in theatre encompasses two objectives. First, it provides a program of cultural enrichment through active participation in plays; students become acquainted with great drama of the past and present, developing a sound critical sense. Second, it gives students practical training in acting and all phases of play production, including experience in various aspects of management and advertising. Pick

The University Theatre annually presents four major stage productions, one of which is a musical. Students are thereby given training in specialized forms of acting. These major productions are supplemented by studio and one-act plays which are classroom productions directed by students in play directing and special project courses.

Musical Opportunities. Musical organizations of the Department of Music are open to qualified students from all disciplines. The choral organizations include the Chapel Choir, Choral Society, Concert Choir, Kantorei, Treble Choir, and VU Show Revue. The Chapel Choir and Kantorei, a select nucleus of the Chapel Choir, provide music for worship services at the Chapel of the Resurrection. The Concert Choir performs the finest of choral literature, both on campus and on annual tours. The Choral Society performs large choral works accompanied by the University Symphony Orchestra. The Treble Choir provides music for services at the Chapel of the Resurrection and performs in concerts on campus. The VU Show Revue performs a repertoire of popular music, Broadway show tunes, and the Top 40—specially costumed and choreographed. Tel
School

Instrumental opportunities include orchestra, several bands, and chamber ensembles. The University Symphony Orchestra performs standard orchestral repertoire including works with chorus, opera, and concertos. The Chamber ensemble consists of approximately twenty select instrumentalists and performs works for various chamber combinations.

The Symphonic Band is dedicated to the performance of the best in band literature. The Marching Crusaders Band and the University Band provide music for athletic events, and the Jazz Band provides workshop and performance opportunities in jazz styles and literature. A number of instruments are available to students enrolled in these ensembles.

The Opera Workshop is an ensemble for gifted singers devoted to the study and performance of major operatic works. Its fully staged productions are a feature of the department's offerings. The Collegium Musicum specializes in the performance of works outside the standard choral and instrumental repertoire.

The department sponsors church music seminars and numerous instrumental and choral workshops. It brings guest and alumni artists to the campus for concerts, recitals, and master classes. Tours by instrumental ensembles and choirs are annual events. University choirs toured in Europe in 1963, 1965, 1971, and 1978.

Students may enroll for applied music lessons. Registration and the payment of an applied music fee entitles the student to a weekly private lesson and the use of practice facilities.

Herse mann
Service Opportunities offered by Alpha Phi Omega and a number of other organizations give students opportunity to extend service to the University community.

Specially qualified upperclass students are eligible for positions as counselors in the residence halls.

Pres of APO Carl Herting
Alpha Phi Omega is the nation's largest service organization assembled to develop leadership, promote friendship, and render service to the campus, community, and nation. Valparaiso's Zeta Gamma Chapter was founded in 1948. Alpha Phi Omega is a co-ed organization whose goals are the development of the individual through both service and social events. Membership in this service organization is open to all students at Valparaiso University. Active membership in Alpha Phi Omega in no way interferes with membership in a social fraternity or social sorority. Pledging involves no hazing, but is a period of learning of history and of constructive service.

Herse mann
Fraternities and sororities on this campus are more than simply social clubs. Offering academic challenge, the close friendship of "brothers" and "sisters," athletic competition at the intramural level, opportunities for community service projects, as well as a comfortable social atmosphere, fraternities and sororities add much to the college education of some students. Fraternity and sorority members are actively represented in student leadership, athletics, and professional organizations.

The Dean of Women is the official adviser to the sororities and the Inter-sorority Council. The Dean of Men is the official adviser to the fraternities and the Interfraternity Council.

STUDENT PERSONNEL PROGRAM. This program, which is under the supervision of the Vice President for Student Affairs, coordinates the various services provided by the University for student welfare and development. These services include Office of the Dean of Men, Office of the Dean of Women, Health Services, Placement, Counseling Services, Valparaiso Union, Security, and Special Programs. A personnel file of each student is kept in the Office of the Dean of Men or Dean of Women.

UNIVERSITY COUNSELING SERVICES. Counseling services at the University are provided by the University Counseling Center and the Chapel Counseling Program.

The professional staff of the University Counseling Center offers a variety of services for full-time students without charge, except for a small fee charged for certain testing programs. Services included are: individual and group counseling, vocational/career development programs, a career resource center, special psychological education programs, and consultation services. Additionally, the Center offers interest, personality, psychological, and other specialized tests, as well as providing the services of a consulting psychiatrist.

Under the direction of the Dean of the Chapel, a pastoral counselor is available each evening in the chapel for personal/theological concerns.

The University Counseling Center and the Chapel Counseling Program function cooperatively yet as administratively independent offices whose records are kept separately and confidential.

PLACEMENT SERVICE. The Office of Placement and Career Counseling offers assistance to Valparaiso graduates in securing employment and offers counseling to all students who may need assistance in making vocational choices. *Coonan*

The Placement Office has close contact with a wide variety of businesses, industries, and government agencies throughout the country. Each year, a large number of companies and agencies send representatives to the campus in order to interview seniors.

The Office keeps on file the credentials (personal data and references) of all graduates who register, without any charge.

Browsing racks at the Office contain a wealth of information regarding institutions, companies, and job opportunities.

The Teacher Placement Office gives assistance to beginning and experienced teacher candidates who have completed requirements for certification under the supervision of the Department of Education in Valparaiso University.

ADMISSION *Muller*

GENERAL REQUIREMENTS. Seeking an academically strong, yet diversified student body, Valparaiso University admits those candidates who demonstrate potential for success in rigorous academic work. Qualified applicants are admitted without regard to race, color, sex, national or ethnic origin, or physical handicaps. The credentials of each applicant are individually evaluated, with consideration given to academic record, test scores, character, personality, and motivation for college studies.

To provide uniform predictive and evaluative norms, the University requires that all candidates for admission to the freshman class take the Scholastic Aptitude Test of the College Entrance Examination Board. In exceptional cases (e.g., in locations where the SAT is not commonly available) the SAT requirement may be deferred, and the PSAT and/or the ACT substituted, if these scores prove satisfactory.

Miller

To be admitted, an applicant should normally be a graduate of an approved secondary school or possess a state high school equivalency certificate. Graduates of non-approved secondary schools and veterans who may not have completed requirements for high school graduation may be granted admission if their scores on the required entrance examination clearly demonstrate their aptitude for college level studies. Exceptionally well-qualified students may be admitted prior to graduation if their candidacy is endorsed both by their high school officials and their parents.

Applications may be filed at any time, but preferably well in advance of the semester in which admission is desired. Each application must be accompanied by an Application Fee of \$15.00, which is non-refundable. No other fee is required by the University at the time of application. All applications for admission to the undergraduate programs of Valparaiso University, except evening division, should be made to the Director of Admissions.

College of Arts and Sciences and College of Business Administration. Since Valparaiso's curriculum offers flexibility and attention to individual talents and needs, no one specific high school program is required of all applicants. Students planning to attend Valparaiso University should take the strongest possible college-preparatory program available to them. Within those guidelines, individual selections of specific courses are best made by the student and his/her high school counselor.

In planning a high school curriculum, students are urged to include a *minimum* of three units in English, two units in mathematics (algebra, geometry), two units in social studies, two units in laboratory sciences, and two units in a foreign language. Students planning to enter the College of Business Administration should take at least three years of mathematics, including a second year of algebra.

College of Engineering. Applicants to the College of Engineering should follow a strong college preparatory program with emphasis on mathematics and science. Candidates should submit a minimum of three and one-half years of mathematics, including $1\frac{1}{2}$ units of algebra, 1 unit of geometry, $\frac{1}{2}$ unit of trigonometry (business, general, or shop mathematics may not be counted), and one year of either chemistry or physics with regular laboratory work. These requirements are minimum: applicants are encouraged to take four years of formal mathematics and both chemistry and physics.

College of Nursing. The requirements for admission to the College of Nursing are essentially the same as those of the College of Arts and Sciences. It is recommended that the student have a year of both biology and chemistry. If available, a second year of biology will better prepare the student for the nursing curriculum.

Christ College. Students are admitted to Christ College only by invitation of the Faculty Committee on Christ College and hold concurrent admission to the College of Arts and Sciences, or the College of Business Administration, or the College of Nursing, or the College of Engineering.

School of Law. Consult this division's bulletin.

Graduate Division. Consult this division's bulletin.

Special Student Status. An undergraduate applicant who is not admitted as a regularly classified student (working toward a baccalaureate degree) may be admitted as a special student. Credits received may be subject to revision should the student in the future become a candidate for a degree. This status is not available to a student dismissed from the University. *Muller*

ADVANCED STANDING BY EXAMINATION. The University offers three basic means for students to receive advanced placement and/or credit. These include: *Feaster*

1. The Advanced Placement Program of the CEEB—AP. Applicants for admission, who take one or more of the Advanced Placement Examinations in May, will receive credit toward a degree for scores of "5" (Extremely Well Qualified) or "4" (Well Qualified).

2. The College Level Examination Program of the CEEB—CLEP. The CLEP program provides an opportunity to gain college credit for those individuals who, through experience, independent study, or enriched high school courses, have attained college-level knowledge of a particular field. It is not recommended that these examinations be taken only on the basis of normal high school courses. Information and test center locations can be obtained from College Entrance Examination Board, Box 592, Princeton, N.J. 08540.

Valparaiso University awards credit for CLEP General Examinations in English, Humanities, Social Science-History, and Natural Science, subject to the following conditions:

A. The General Examination must be taken prior to matriculation at Valparaiso University.

B. Credit for a CLEP General Examination may not be applied to a major field or any specific course requirement except as listed under D, E, F, and G.

C. Credit for a CLEP General Examination is valid only if no other credit by examination is awarded in courses applicable in the same area of general education.

D. A score of 500 or above on the English General Examination will entitle a student to three (3) credits for English 5.

E. A score of 500 or above on the Humanities General Examination will entitle a student to three (3) credits in the area of Fine Arts or Fine Arts-Literature.

F. A score of 500 or above on the Social Science-History General Examination will entitle the student to three (3) credits in the area of Social Analysis.

G. A score of 500 or above on the Natural Science General Examination will entitle a student to four (4) credits in the area of Natural Science and Mathematics. A student who applies these credits to the general education requirement in Natural Science and Mathematics will be expected to complete at least one laboratory course in science.

Valparaiso University awards credit for CLEP Subject Area examinations as indicated in the separate departmental listings. Credit for Subject Area examinations is awarded only if the examination is taken before a student has enrolled in a college-level course in the department concerned.

3. University Placement Testing. During the orientation period which precedes each semester, placement tests are offered to incoming students (freshmen and transfers) in the areas listed below. These tests provide an opportunity for students to attain advanced placement, receive credit (as described below), or to meet certain general education requirements.

Currently advanced placement and credit are awarded in biology, chemistry, foreign languages, and mathematics, as explained in the catalog sections dealing with those departments.

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***ADVANCED STANDING—TRANSFER STUDENTS.** The University welcomes transfer students from junior colleges, community colleges, and other accredited institutions of higher education. A transfer student is defined as a student who has matriculated at another college or university before enrolling at Valparaiso University. Students seeking regular admission as transfers to Valparaiso University must apply for admission through the Director of Admissions at least three weeks prior to the official registration days of the session for which they are applying and must present evidence of honorable dismissal from the institution last attended. A transfer student will not be given a Permit to Enter from the Director of Admissions until official transcript(s), a completed medical report, and other required credentials are on file in the Admissions Office. In some cases, the Director of Admissions may require a personal interview before admission is approved. After the applicant's record has been evaluated, he/she will be notified regarding the courses which are found acceptable for transfer. Courses with grades of "D" will be accepted as credit for graduation provided a grade-point average of 2.00 (C) or better is attained on work completed at any one institution, and which has not previously been evaluated.**

Credits earned more than fifteen years ago will be accepted toward graduation requirements on a provisional basis, subject to validation by first year's work (30 semester hours) completed in residence with a 2.00 average. The University reserves the right to reject any applicant for admission by transfer whose academic record is unsatisfactory.

Most credits earned in secretarial studies and credits earned in Developmental Reading are not applicable toward any degree granted by Valparaiso University.

The maximum number of advanced standing credits that may be transferred to the University is 94 credits (Colleges of Arts and Sciences, Business Administration, or Nursing) or 106 credits (College of Engineering).

Advanced standing is the record of courses and credits accepted by Valparaiso University from another institution. Students who enter with advanced standing because of credits transferred from another school must earn at Valparaiso University twice as many quality points as semester hours attempted in order to be eligible for a degree.

Transfer students should become familiar with the sections on housing (page 219), financial aid (page 226), residence requirement (page 214), and graduation (page 214).

*Credit for workshops, institutes, or travel-study ordinarily will be granted only for work taken at Valparaiso University. In cases of exception to the preceding restriction, transfer credit for Institutes or Workshops usually will not exceed one credit per calendar week of instruction. Transfer credit for travel-study programs usually will not exceed two credits per calendar week.

**For students in the College of Business Administration see page 156.

The following applies to the use of advanced standing in meeting degree requirements within the College of Arts and Sciences:

Transfer

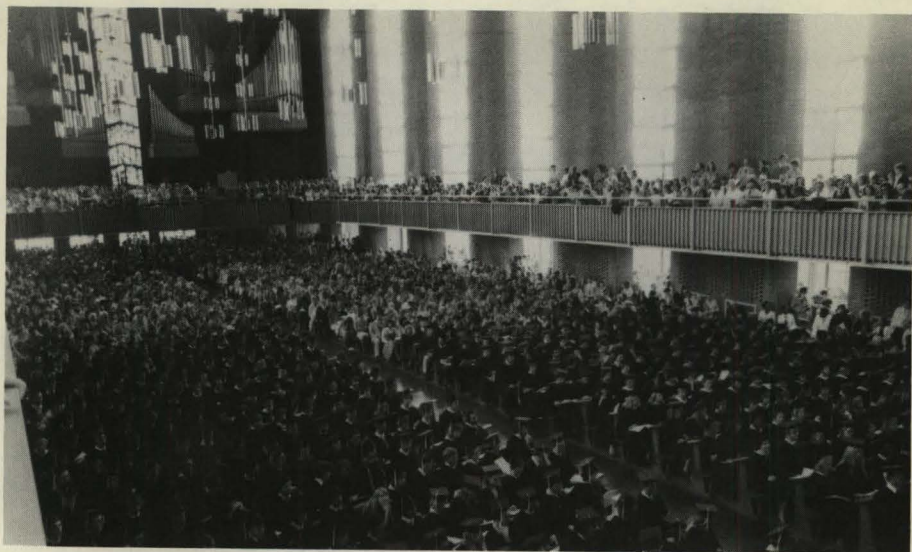
A. General Education. A Statement of Equivalence is prepared by the Dean of the College of Arts and Sciences in regard to the general education requirements for the Bachelor of Arts degree. The following special rules apply:

1. Religion. A transfer student may apply a maximum of 6 credits in religion from his/her advanced standing to the religion requirement. Otherwise, a transfer student with more than 45 credits but less than 75 credits of advanced standing need complete two courses (6 credits) of religion at Valparaiso University. A transfer student with 75 credits or more of advanced standing need complete one course (3 credits) of religion at Valparaiso University.

2. University Course. This one course requirement must be fulfilled at Valparaiso University. In some instances, the General Education Officer, with appropriate advice, may allow transfer students to substitute an appropriate course taken at another institution.

B. Concentration Requirements. Statements of equivalence for academic majors or professional block schedules are prepared by the departments concerned.





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**COLLEGE
OF
ARTS AND SCIENCES**

Vance

Forrest L. Vance, Ph.D.
Dean

John Feaster, Ph.D.
Associate Dean

The College of Arts and Sciences, the largest college in the University, consists of twenty-two departments and provides the University with its program of general education for all students as well as many programs of advanced work in the fields of the liberal arts and in several professional areas.

Each degree in the College consists essentially of two parts. The first is known as **general education**; the second is a field of **concentration**. To these two parts, the student usually adds elective courses, chosen from all the offerings of the University.

GENERAL EDUCATION AT VALPARAISO UNIVERSITY

All degrees are based on a solid foundation of general education required by the University. These courses in the liberal arts provide both a foundation and a context which foster the student's growth in knowledge, in intellectual skills, and in the ability to make sound and informed judgments in many matters.

In the description which now follows, we are not setting forth exact requirements but rather the shape of the general education program. Each degree adapts as much of the whole program as possible to fit its needs, but not every student will take every course indicated here. These paragraphs are rather intended to convey something of the flavor and rationale of the program.

Writing. Good writing is the foundation of literacy, and literacy—the ability to deal with words—is fundamental for most activities in life. During the freshman year students take a course which focuses on writing. A special freshman seminar combines an emphasis on writing with other forms of communication. The freshman religion course includes a special emphasis on writing as well.

Religion. Religion is very important in American society and culture and in personal human development. A University such as Valparaiso is able to bring substantial resources to this study and thus offers a wide range of studies in religion. The University holds that all students should, as part of their general education, develop an ability to investigate significant religious questions, including the claims of the Christian faith. Students take three courses in religion over their four years, beginning in their freshman year and following with a choice from a broad range of offerings in the entire religious experience of the world.

Literature and Fine Arts. Courses in literature and fine arts develop the student's ability to respond with appreciation and judgment to the full range of human experience expressed in various literary and art forms. Students take two courses in this area.

Historical, Social, and Philosophical Studies. In the freshman year, a student enrolls in a course on the history of western thought and society in which he/she attempts to understand how the forces which shape the modern

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world developed in the course of our history. In later years he/she will build on this with a course in either history or philosophy. Through these courses, the student comes to understand how ideas and institutions have come into being, how they change over time, and how we may acquire a perspective for understanding society today. To understand how modern institutions and social processes actually function, the student will take two additional courses in the area of social analysis, offered largely through the departments in the social sciences, such as Economics and Sociology.

Foreign Languages. Although an optional study in the Bachelor of Science degree programs (see below), the study of foreign languages has always been a requirement of Valparaiso's B.A. program. Courses in a second language form a foundation for language fluency for international communication and for understanding another culture through its literature and cultural traditions. In addition, the general development of linguistic skills helps students to a better understanding of their own language.

Non-Western or Third World Studies. In a global society of increasing interdependence, good education requires that a student not only understand his own roots but reach out and become acquainted with other cultures and societies. The University offers a variety of relevant courses from which students will select one for their programs.

Natural Science, Mathematics, and the Computer. Few developments so affect the world in which we live as does the rise of modern science. In order to understand this powerful force and its steady generation of new knowledge, students are asked to choose several courses from a number of areas, thus being introduced to the variety of scientific fields and disciplines. Mathematics, the language of science, forms a part of this general academic area, and students may select a course from this field as well, though there is no specific mathematics requirement. Courses in computer science are also available for this area.

Physical Education. Though more and more students today are active in sports and recreation on their own initiative, the University still requires students to give attention to physical fitness and recreational activities through a requirement in this field.

Summary Outline of the General Education Program

(Note: Requirements will vary somewhat in various degree programs. These variations are described below for the College of Arts and Sciences, and in appropriate places for the other colleges.)

1. Freshman Studies (taken during the freshman year)

Freshman Seminar
Introduction to Christian Theology
Exposition and Argument
History of Western Thought and Society

2. Academic Area Studies (taken largely in the sophomore year, though some may be taken as a freshman, others as a junior)

Theology (two courses)
Literature and Fine Arts (two courses)
Historical and Philosophical Studies (one course)
Studies in Social Analysis (two courses)
Studies in Natural Science and Mathematics (three courses)
Non-Western or Third World Studies (one course)
Foreign Languages (variable requirement)
Physical Education (two courses)

3. Integrative Studies (taken during the junior or senior year)

A single course called the University Course. A number of specially designed courses are offered, aimed at encouraging students to confront significant contemporary issues, applying the knowledge and skills acquired in earlier stages of their learning.

FRESHMAN STUDIES

The following four courses comprise a core of freshman studies taken by all students in the University during their freshman year.* Students who transfer into the University with more than 18 semester hours of credit are excused from the seminar. Appropriate transfer courses may be substituted for the remaining freshman studies courses.

5. Freshman Seminar. Cr. 3. Limited enrollment courses designed to encourage in students the cultivation of disciplined speech and writing, to train them in the critical skills of reading, thinking, and discussion, and to introduce them to the methods of study and inquiry that are the particular gifts of a liberal education. Freshman Seminars are intended to foster an open, enthusiastic, and cooperative regard for the activities of learning and scholarship and to provide the kind of in-depth academic experience that properly signals the progression from secondary education to education in a university setting. In addition, Freshman Seminars encourage the development of a close relationship with a member of the faculty early in the student's academic career. Freshman Seminars are offered on a variety of themes, topics, and issues, and are taught by faculty from all departments of the College of Arts and Sciences and, on occasion, by faculty of the other colleges of the University. A booklet listing the Freshman Seminars offered in a given semester is available from the Office of the Dean, College of Arts and Sciences.

5. Introduction to Christian Theology. Cr. 3. An introduction to the study of Christian theology, with attention to the religious question, basic biblical themes, central doctrines, ethics, and worship.

5. Exposition and Argument. Cr. 3. An intensive course in the writing of expository and argumentative prose with emphasis upon coherent organization, the logical progression of thought, and the effective use of language.

5. History of Western Thought and Society. Cr. 3. A study of the thought and social development that has characterized Western society from ancient to modern times. Special attention will be given to identifying the basic traditions of Western culture and to examining the process of historical change.

Enrollment in Freshman Studies Courses: Students entering the University at the beginning of the fall semester should enroll in either the Freshman Seminar or English 5, but not both, and enroll in either Theology 5 or History 5, but not both. During the spring semester, enrollment in the Freshman Studies courses is then simply reversed.

UNIVERSITY COURSE (UC 100. Cr. 3)

This upper division general education course allows students to confront significant issues and/or problems of value in a context that encourages application of the knowledge and skills acquired during the earlier stages of their undergraduate academic life. A listing of University Courses to be offered in any given semester is published in the regular time schedule, and is also available in the Office of the Dean, College of Arts and Sciences.

For further information concerning requirements for this course, please refer to page 212.

*Students enrolled in the Christ College Freshman Program are exempted.

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REGULATIONS CONCERNING GENERAL EDUCATION REQUIREMENTS

1. A course may not be used to meet more than one general education requirement, with the exception of the required course in Non-Western or Third World Studies. Appropriately designated Non-Western or Third World Studies courses may be applied simultaneously toward fulfillment of certain area studies requirements.
2. Only courses of at least three credits may be used in meeting general education requirements (excluding the requirement in physical education), except in the case of specified 4-credit courses comprised of two, 2-credit components.
3. Courses taken to fulfill concentration requirements may be presented in fulfillment of general education requirements where applicable.

Vance

THE FIELD OF CONCENTRATION

Each student must develop a field of concentration. There are a number of ways of meeting this requirement, including the possibility of a double concentration. The various options for concentrations are presented in detail in connection with the degree requirements listed below. These options may appear to be complicated, especially in connection with the Bachelor of Arts degree, but they are intended to offer a great deal of flexibility so that students may find the program best fitted for their interests and needs.

DEGREES AND DEGREE REQUIREMENTS. Requirements for each degree consist of general education requirements and concentration requirements, plus sufficient elective credit to achieve the total credit hour requirement.

The Associate in Science Degree (60 credits).

A. General Education Requirements:

1. Theology 5 (3 credits).
2. English 2 or 5 (3 credits).
3. History 5 (3 credits).
4. Social Analysis (3 credits).
5. Physical Education (1 credit).

B. Concentration Requirements: A student must complete at least 30 credits in Natural Science and Mathematics. (Students preparing for admission to one of the allied health fields should develop an appropriate program of study with the Dean's Office.)

C. Other Requirements:

1. The following work must be completed in residence at Valparaiso University:
 - a. 30 of the last 34 credits toward the degree.
 - b. At least 15 credits in Natural Science and Mathematics.
 - c. The General Education Requirement in Religion.
2. The student must earn a cumulative grade-point average of 2.00 on all

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work in residence and on courses in the Natural Sciences and Mathematics taken in residence.

The Bachelor of Arts Degree (124 credits).

A. General Education Requirements:

1. Freshman Studies (12 credits). See page 32 for details concerning this component of the general education program.

2. Academic Area Studies.

a. Religion (6 credits). One course from Level Two and one course from Level Three (in addition to Theology 5).

b. Literature and Fine Arts (7 credits). English 25, Literary Studies (4 credits), and one course in Fine Arts or Fine Arts-Literature (3 credits).

c. Foreign Language (8 credits).^{*} Course number 20 in a foreign language in which the student has no more than one year of high school credit, or course number 30 in any foreign language. (A student with more than one year of high school credit in a foreign language may not earn college credit in a first semester course in that language at Valparaiso University.)

d. Non-Western or Third World Studies (0-3 credits). In appropriate cases, a student may use this course to fulfill another area studies requirement in addition to the Non-Western or Third World Studies Requirement.

e. Historical and Philosophical Studies (3 credits). One course in either History or Philosophy.

f. Studies in Social Analysis (6 credits). Two appropriately designated courses, one each from two of the following departments: Economics, Geography, Political Science, Sociology.

g. Studies in Natural Science and Mathematics (12 credits). One course with laboratory from each of the two following areas: the life sciences (Biology, Psychology), the physical sciences (Chemistry, Physics, Physical Geography). The third course may be selected in one of the following three ways: (1) a course from any of the above five disciplines not previously selected; (2) a course from one of the above five disciplines previously selected which has that earlier course as its prerequisite; (3) a course in Mathematics and Computer Science.

h. Physical Education (2 credits). Enrollment twice in Physical Education 10.

3. Integrative Studies. One University Course (3 credits). See page 32 for information concerning the University Course.

B. Concentration Requirements:

Students pursuing the Bachelor of Arts degree in the College of Arts and Sciences may elect to fulfill concentration requirements by following either

^{*}Foreign students, whose native language is not English and who are studying on a non-immigrant visa, are exempt from the Foreign Language requirement provided they have fulfilled the general education requirements in English (English 2 or 5 and 25). Such students are eligible to earn up to eight (8) credits by taking the Foreign Language Proficiency Examination approved by the Department of Foreign Languages.

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the Major Option or the Program Option. Requirements for each option are given below.

Major Option.

In order to fulfill concentration requirements under the Major Option, students must complete a minimum academic major. The following major fields may be applied to the Bachelor of Arts degree: Art, Biology, Chemistry, Classics, Computer Science, Economics, English, French, Geography, Geology, German, Greek, History, Journalism, Latin, Mathematics, Music, Philosophy, Physics, Political Science, Psychology, Religion, Sociology, Spanish, and Speech and Drama, which offers area majors in Theatre, Communication, and Speech Pathology.

An approved Individualized Major of 30 credits may be presented in lieu of the departmental majors listed above. See page 39 for guidelines for designing the individualized major.

In addition to completing a major listed above, students must further develop their concentration requirements under the Major Option in one of the following ways:

1. By completing an academic minor. The faculty recommends that minors be selected that are complementary to the major. An area minor in American Studies, Asian Studies, or British Studies may be presented in fulfillment of this requirement. No course may be used to fulfill both a major and a minor requirement except with the permission of the Dean of the College.
2. By completing a second academic major. In addition to the first major areas listed above, Home Economics and Physical Education may also be selected. An approved Individualized Major may also be presented in fulfillment of requirements for a second major.
3. By completing at least 40 credits in the first major. However, no more than 48 credit hours from one department may be applied toward the 124 required for graduation. (This limitation does not apply to students pursuing Home Economics vocational certification, the Bachelor of Music or Bachelor of Music Education degrees, or students pursuing the Bachelor of Fine Arts degree who present 62 non-art credits.)
4. By completing the General Business Sequence offered by the College of Business Administration. See page 40 for details.

Program Option.

The College of Arts and Sciences offers three special programs of study which students may pursue in lieu of the Major Option outlined above. These programs are coordinated by special administrative committees composed of faculty members drawn together by their interest in a particular subject not defined by the boundaries of the traditional academic disciplines. Programs are currently offered in American Studies, International Economics and Cultural Affairs, and Music Merchandising. The specific requirements for each program are outlined in the section on curricular offerings beginning on page 48.

The Bachelor of Music Degree (128-134 credits). The requirements for this degree are given in the announcements of the Department of Music on page 109 of this bulletin.

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The Bachelor of Music Education Degree (134-138 credits). The requirements for this degree are given in the announcements of the Department of Music on page 111 of this bulletin.

The Bachelor of Science Degree (124 credits).

A. General Education Requirements (For detailed information on the categories below, see requirements for the Bachelor of Arts degree.):

1. Freshman Studies (12 credits).
 2. Academic Area Studies.
 - a. Religion (6 credits).
 - b. English 25 (4 credits).
 - c. Non-Western or Third World Studies (0-3 credits).
 - d. Studies in Social Analysis (6 credits).
 - e. Studies in Natural Science and Mathematics (12 credits). One course with laboratory from each of the two following areas: the life sciences (Biology, Psychology), the physical sciences (Chemistry, Physics, Physical Geography). In addition, students pursuing the Bachelor of Science degree must take Mathematics 36 (or equivalent) or Computer Science 17 and 21 (or equivalent).
 - f. Physical Education 10 (2 credits).
 3. Academic Area Studies Option (Select two of the following).
 - a. Fine Arts or Fine Arts-Literature (3 credits).
 - b. Foreign Language. One course above number 10 (3-4 credits).
 - c. One course from either History or Philosophy (3 credits).
 4. Integrative Studies. One University Course (3 credits).
- B. Concentration Requirements:

A student must include one science major of at least 32 credits and a science minor; or one science major of at least 32 credits and a non-science major; or two minimum science majors (Biology, Chemistry, Computer Science, Geology, Mathematics, Physics, Psychology). Geology is offered in a special program of the Department of Geography.

The Bachelor of Science in Education Degree (124 credits). The requirements for this degree are given in the announcement of the Department of Education on page 64 of this bulletin. This curriculum is intended for students planning to become teachers in elementary schools.

The Bachelor of Science in Fine Arts Degree (124 credits).

A. General Education Requirements (For detailed information on the categories below, see requirements for the Bachelor of Arts degree.):

1. Freshman Studies (12 credits).
2. Academic Area Studies.

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- a. Religion (6 credits).
 - b. English 25 (4 credits).
 - c. Non-Western or Third World Studies (0-3 credits).
 - d. Studies in Social Analysis (6 credits).
 - e. Studies in Natural Science and Mathematics (12 credits).
 - f. Physical Education 10 (2 credits).
3. Academic Area Studies Option (Select two of the following).
- a. Fine Arts or Fine Arts-Literature (3 credits).
 - b. Foreign Language. One course above number 10 (3-4 credits).
 - c. One course from either History or Philosophy (3 credits).
4. Integrative Studies. One University Course (3 credits).
- B. Concentration Requirements:
1. The student must complete a major in art consisting of at least 54 credits (see announcement of the Department of Art for specific course requirements).
 2. The student must earn at least 62 credits in non-art courses.
 3. The student must receive approval by the Department of Art of a portfolio presentation by the beginning of the junior year in order to be eligible for this degree.

The Bachelor of Science in Home Economics Degree (124 credits).

A. General Education Requirements (For detailed information on the categories below, see requirements for the Bachelor of Arts degree.):

1. Freshman Studies (12 credits).
2. Academic Area Studies.
 - a. Religion (6 credits).
 - b. English 25 (4 credits).
 - c. Non-Western or Third World Studies (0-3 credits).
 - d. Studies in Social Analysis (3 credits).
 - e. Studies in Natural Science and Mathematics.
 - 1) Chemistry 43 and 44 (8 credits).
 - 2) Biology 50 (4 credits).
 - f. Physical Education 10 (2 credits).
3. Academic Area Studies Option (Select two of the following).
 - a. Fine Arts or Fine Arts-Literature (3 credits).
 - b. Foreign Language. One course above number 10 (3-4 credits).
 - c. One course in History or Philosophy (3 credits).

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4. Integrative Studies. One University Course (3 credits).

B. Other General Education:

1. Psychology 51. General Psychology (3 credits).

2. Sociology 26. The Family (3 credits).

3. Speech/Drama 45. Interpersonal Communication (3 credits). This course is not required in the General Dietetics Emphasis.

C. Concentration Requirements: See announcement of the Department of Home Economics for concentration requirements in the various Home Economics emphases.

The Bachelor of Science in Physical Education Degree (124 credits).

A. General Education Requirements (For detailed information on the categories below, see requirements for the Bachelor of Arts degree.):

1. Freshman Studies (12 credits).

2. Academic Area Studies.

a. Religion (6 credits).

b. English 25 (4 credits)

c. Non-Western or Third World Studies (0-3 credits).

d. Studies in Social Analysis (6 credits).

e. Studies in Natural Science and Mathematics.

1) Biology 50 and 115 (8 credits).

2) Chemistry 43 (4 credits)

f. Physical Education 10 (2 credits).

3. Academic Area Studies Option (Select two of the following).

a. Fine Arts or Fine Arts-Literature (3 credits).

b. Foreign Language. One course above number 10 (3-4 credits).

c. One course in History or Philosophy (3 credits).

4. Integrative Studies. One University Course (3 credits).

B. Other General Education: Psychology 51. General Psychology (3 credits).

C. Concentration Requirements: Concentration requirements for the Bachelor of Science in Physical Education degree are the same as those for the Bachelor of Arts degree. The first major must be Physical Education. See announcement of the Department of Physical Education for specific course requirements.

The Bachelor of Social Work Degree (124 credits).

A. General Education Requirements: The general education requirements for the Bachelor of Social Work degree are the same as those for the Bachelor of Arts degree.

Vance

B. Concentration Requirements: The concentration area must be Social Work. See announcement of the Department of Social Work for specific course requirements.

RESTRICTIONS ON THE USE OF CREDITS FOR DEGREES IN THE COLLEGE OF ARTS AND SCIENCES.

1. A student may apply no more than 4 credits in Physical Education course number 10 toward a degree in the College of Arts and Sciences.
2. Non-Music majors are limited to 16 credits in applied music, of which no more than 4 may be in ensemble music. For further clarification regarding applied music and ensemble, see page 114.
3. No more than 48 credit hours in any one department may be included in the 124 total credits required for graduation. This limitation does not apply to students pursuing Home Economics vocational certification, the Bachelor of Music or the Bachelor of Music Education degrees, or to students pursuing the degree of Bachelor of Science in Fine Arts who present 62 non-art credits.
4. A student may apply no more than 13 credits *collectively* from the professional colleges of the University toward a degree in the College of Arts and Sciences, subject to the following exceptions:
 - a. Students selecting the General Business Sequence may earn up to 22 credits in Business Administration courses.
 - b. For students in the Home Economics—Merchandising Emphasis or students pursuing the program in Music Merchandising, required courses beyond the 13 credit limitation are allowed.

Note: A student who transfers from one of the professional colleges into the College of Arts and Sciences may apply credits within the restrictions listed above.

Individualized Majors. This major is an option intended for students with clearly defined academic and/or career objectives who may feel that their specific needs are not met by any single department in the College of Arts and Sciences. A student in the College may propose a plan for an Individualized Major which the Dean of the College may approve providing the following conditions are satisfied:

1. The proposed major must include at least 30 credits, chosen from two or more departments (32 for the Bachelor of Science degree), that are not used in meeting general education requirements.
2. The proposed major must include a comprehensive statement by the student justifying the overall major as well as the specific courses listed. (Revisions in the Individualized Major made subsequent to the original filing must also be approved by the Dean of the College).
3. The proposed major must include a statement by a member of the faculty indicating both support for the proposed major and a willingness to serve as adviser/sponsor.

4. The proposed major must be submitted to the Dean of the College of Arts and Sciences for approval, preferably by the beginning of the junior year, but no later than the deadline for filing for degree candidacy.

The selection of courses for the Individualized Major should reflect serious deliberation on the part of both student and sponsor. Normally, the Individualized Major will not include lower division courses or courses of an introductory nature.

The Individualized Major may be freely substituted for a regular academic major in any of the various combinations available to students in meeting concentration requirements for the Bachelor of Arts or Bachelor of Science degree.

Cooperative Arts and Sciences/Business Administration Offerings. Students in the College of Arts and Sciences may complement their study with supporting courses in the College of Business Administration in two ways: by pursuing the **General Business Sequence** or by using the 13 allowed transfer credits from other colleges of the University to pursue one of the **Support Clusters in Business Administration**. Students who complete the General Business Sequence are allowed to present the required 22 credits in Business Administration courses toward the 124 required for graduation, but they may present no more than that. Students selecting a Support Cluster must present no more than 13 credits. It should be noted that the 22-credit limitation as well as the 13-credit limitation refer to any and all work transferred collectively from professional colleges of the University into the College of Arts and Sciences.

GENERAL BUSINESS SEQUENCE. The objectives of the General Business Sequence in the College of Business Administration are:

1. To give the student in Arts and Sciences an opportunity to acquire a balanced preparation for a career in industry or government.
2. To prepare a student in the Arts and Sciences for graduate studies in business administration. The General Business Sequence is composed of the prerequisite courses required for most Master of Business Administration programs. The majority of MBA students nationally tend to have first majored in the fields of economics, engineering, mathematics, or sciences. Once the prerequisites and other requirements for an MBA are met, the student can complete the advanced studies in a year of full time study.
3. To permit students outside the College of Business Administration to prepare for, and to have access to, specialized upper division courses in the College of Business Administration.

Lower Division

			Credits
Econ.	71, 72	Principles of Economics—Micro and Macro	6
*Adm. Sc.	50	GLM: Statistics	3
Adm. Sc.	62	GLM: Legal Environment of Business	3
Acc.	52	Financial Accounting	4
Acc.	55	Managerial Accounting	3
Sub-Total			19

*Prerequisites: Mathematics 35 and 36. Students interested in graduate study are advised to substitute Mathematics 75 and 76. An equivalent course in Mathematical Statistics may be substituted.

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Upper Division

Adm. Sc. 101	GLM: Management of Organizations	3
Adm. Sc. 101	MKM: Marketing Management	3
Adm. Sc. 101	FNM: Financial Management	3

Sub-Total 9

Adviser. Students declaring a General Business Sequence must have a faculty member of the College of Business Administration as an adviser for this program. The adviser will be assigned by the Office of the Dean, College of Business Administration.

Advancement To Upper Division. For advancement to upper division courses, a student selecting the General Business Sequence must complete a minimum of 56 credit hours in the freshman and sophomore years with an overall minimum cumulative grade point average of 2.0. In addition, the student must complete all or all but one of the courses (or their equivalent) designated above as the lower division business curriculum. A student must achieve a grade of C- (1.7) or better in each of the above designated lower division business courses; an exception in one course grade may be allowed.

Support Clusters in Business Administration:

Career Interest In Business Organizations I

		Credits
Acc. 52	Financial Accounting	4
Adm. Sc. 101	GLM: Management of Organizations	3
Adm. Sc. 101	HRM: Human Resource Management	3
Adm. Sc. 143	HRM: Organizational Behavior	3
		Total 13

Career Interest In Business Organizations II

		Credits
Adm. Sc. 101	GLM: Management of Organizations	3
Adm. Sc. 101	HRM: Human Resource Management	3
Adm. Sc. 143	HRM: Organizational Behavior	3
Adm. Sc. 101	MKM: Marketing Management	3
		Total 12

Career Interest In Retailing

Adm. Sc. 101	MKM: Marketing Management	3
Adm. Sc. 131	MKM: Retailing	3
Adm. Sc. 132	MKM: Advertising	3
Adm. Sc. 133	MKM: Sales Management	3
		Total 12

Career Interest In Financial Institutions or Banking

Acc. 52	Financial Accounting	4
Acc. 55	Managerial Accounting	3
Adm. Sc. 101	FNM: Financial Management	3
Adm. Sc. 101	GLM: Management of Organizations	3
		Total 13

The student may construct an individualized support cluster up to a total of 13 semester credit hours other than those listed provided there is full compliance with the prerequisites specified for each course selected.

Value

THE PROFESSIONAL AND PRE-PROFESSIONAL AREAS. The College of Arts and Sciences offers degrees especially designed for elementary teaching, the teaching of music, the performance of music, work in art, work in home economics, and work in physical education. In addition, students may earn a major in social work for the Bachelor of Social Work degree and prepare for secondary teaching under a variety of majors for the Bachelor of Arts and Bachelor of Science degrees. Finally, the Deaconess Program, the pre-legal program, and the pre-medical arts program are special programs which a student may complete while majoring in a liberal arts area.

Students interested in any of these professional or pre-professional areas should declare the appropriate major before entering the sophomore year.

Teacher-Education Program. The University currently prepares applicants for the following types of teaching certificates:

Elementary
General Elementary (1-6)
Endorsements in:
Reading
Special Education
 (learning disabilities/
 neurologically impaired)
Coaching
Health Education
Music
Physical Education
Recreation
Visual Arts
Conversion to Junior High/Middle
 School (5-9)
Social Studies

Coaching—endorsement
Health and Safety—Minor
Music—Minor
Physical Education—Major, Minor
Reading—Minor
 (Learning disabilities/
 neurologically impaired)

Senior High (9-12)
Coaching—endorsement
English—Major, Minor
Foreign Language—Major, Minor
 French
 German
 Latin
 Spanish
Health and Safety—Minor
Journalism—Major, Minor
Mathematics—Major, Minor
Music—Minor
Physical Education—Minor

Language Arts
Mathematics
Science
Foreign Language
Visual Arts
All Grade Education (K-12)
Coaching—endorsement
Music (Area Major)
Music (choral, general, or
 instrumental)—Major, Minor
Physical Education
Visual Arts
Home Economics
Recreation—Minor

Junior-Senior High (7-12)
Earth Space Science—Minor
General Science—Minor
Physical Science—Minor
Social Studies—Major, Minor
Economics
Geography
Government
Psychology
Sociology
U.S. History
World Civilization
Speech—Major, Minor
Visual Arts—Major, Minor

Conversion of secondary license to
 Junior High/Middle School (5-9)
English
Foreign Language
Journalism
Mathematics
Science

Reading—Minor
Recreation—Minor
Science
Biology—Major, Minor
Chemistry—Major, Minor
Physics—Major, Minor

Social Studies
Speech
Visual Arts
School Services Personnel
Nurse

The Teacher-Education Program is under the general direction of the Department of Education. Eligibility for admission to the program is determined by the Department.

Preparation for the Medical Arts. Students may prepare for entrance into medical, dental, veterinary, medical technology, or para-medical schools by entering one of the pre-medical arts programs of the University. Students in these programs must have their schedules approved at the beginning of each semester by an assigned special adviser. Advising in the medical arts is handled by pre-medical advisers.

In some fields such as medicine, dentistry, and veterinary medicine completion of a bachelor's degree is often required before entering the professional program. However, if three years or less of college work are needed for entrance into a professional program, a student may earn a bachelor's degree through the University's Combined Liberal Arts-Medical Arts program. This involves three years of work at Valparaiso University and one year's work at an approved professional school. (See the next section of this catalog for details.) This program is often used by students in medical technology. The University has formal affiliations with the Schools of Medical Technology at St. Mary Medical Center, Gary, Indiana; Lutheran Medical Center, Cleveland; Fort Wayne Lutheran Hospital; Evanston Hospital, Evanston, Illinois; Lutheran General Hospital, Park Ridge, Illinois; and West Suburban Hospital, Oak Park, Illinois. However, students may attend other institutions.

Students wanting to enter allied health fields which require two years or less of college preparation may want to earn the Associate in Science degree at Valparaiso University which requires two years of college credit. (See page 33 for requirements of this degree.) Further information about allied health fields may be obtained from the Dean's Office.

The Combined Liberal Arts-Medical Arts Program. A student may complete the degree of Bachelor of Arts or of Bachelor of Science from Valparaiso University by completing three years of study at the University and completing an additional year's work at an approved school of medicine, dentistry, veterinary medicine, medical technology, or of another allied health discipline. Prior approval of the program must be secured from the Committee on Pre-Medical Arts.

Specifically, the student who elects one of these programs must meet the following requirements:

1. He/She must spend the junior year in residence at Valparaiso University.
2. He/She must meet all general education requirements for the Bachelor of Arts or of the Bachelor of Science degree with the exception that one course in religion and the University Course requirement are waived.
3. He/She must complete an academic major. For the Bachelor of Science degree this major must be in one of the science fields.

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4. He/She must offer at least 93 semester credits of college work.

5. He/She must make application for graduation by the deadline date as noted in the official University calendar as found on pages 3-4 of this catalog and present to the Registrar an official transcript of an additional year's satisfactory work at an approved professional school.

Combined Liberal Arts-Engineering Program. A student may earn in five years (ten semesters) both the Bachelor of Arts degree and one of the Bachelor of Science degrees in Engineering. He/She may earn the two degrees by completing one of the engineering curricula and completing the general education requirements of the College of Arts and Sciences as well as the major requirement of that college. This will require him/her to earn 168 credit hours and to have a standing of at least two (2.00) in all his/her work. Students electing such a program must have their schedules approved by both the Dean of the College of Arts and Sciences and the Dean of the College of Engineering at the beginning of each semester. Sample or representative curricula for such programs may be obtained upon application to the Dean of the College of Engineering.

Arts and Sciences Pre-Engineering Program. In some instances, students applying for admission to the College of Engineering may require additional preparatory work, usually in mathematics or sciences, before admission is granted. A limited number of such students, as well as late applicants, are admitted to the College of Arts and Sciences and are assisted by the College of Engineering in developing a course of study which will prepare them for admission to the Engineering program. Students who successfully complete this course of study may then apply to the Dean of the College of Engineering for admission to that College.

Preparation for the Study of Law. According to the consensus of legal educators, particular courses are not a prerequisite for law study. Significant qualities of undergraduate preparation derive from the intellectual discipline required by exacting teachers rather than the subject matter of what is taught. The pre-law student should therefore consult with his academic adviser or *Pre-Law Adviser* to select courses in the student's areas of interest which will place demands on analytic skills and both verbal and written expression.

Preparation for the Foreign Service of the United States. A student who wishes to enter the Foreign Service of the United States should carefully prepare himself/herself for the Foreign Service Officer Examination. To this end, as many as possible of the following courses should be taken:

Principles of Economics (Economics 71 and 72)
American Literature (English 101 and 102)
Advanced Composition (English 131)
Modern Foreign Language—French, German, Spanish
(Enough courses to gain fluency in speaking)
Geography of the Industrialized World (Geography 1)
Geography of the Non-Industrialized World (Geography 2)
Introduction to Political Science (Political Science 1)
Comparative Politics (Political Science 44)
International Relations (Political Science 65)
Public Administration (Political Science 162)
Foreign Political Areas (Political Science 153, 154, 158)

Source

History of Western Thought and Society (History 5)
Introduction to the Contemporary World (History 10)
The History of the United States (History 20 and 21)
Introductory Sociology (Sociology 1)

For information concerning the Angus Ward Foreign Service Scholarship, see page 240.

Students interested in foreign service should also consider the Program in International Economics and Cultural Affairs outlined on page 96.

Program of Studies in Deaconess Ministry. The University and the Lutheran Deaconess Association cooperate in the education of women for service in Deaconess Ministry.

The student must ordinarily meet the requirements of the College of Arts and Sciences for a degree of Bachelor of Arts with a major in Religion. She may elect to have a second major in her study program or develop an approved individual plan of study to complement the Religion major. Each student must fulfill the requirements of the Department of Theology and the Lutheran Deaconess Association.

Pi Delta Chi is the professional sorority of student deaconesses. This organization assists the student in her understanding of the diaconate and of the varieties of ministries in which she can serve God and people.

A directed Field Work Program for academic credit provides opportunity to begin the development of professional skills.

A year of Internship is required between the junior and senior year. Under special circumstances, the Internship may be taken after the senior year. This is a year of supervised learning through working in a church related setting, enabling the student to develop the knowledge, skills and understandings required for functioning in Deaconess Ministry.

The Deaconess student is expected to reside in Deaconess Hall during her junior and senior years. She also is encouraged to participate in University activities as a part of the learning experience.

A college graduate may complete the Deaconess Education Program by attending Valparaiso University for a minimum of two semesters, with the specific requirements being determined on an individual basis. Persons who are not seeking a Bachelor of Arts Degree may be able to fulfill the Lutheran Deaconess Association educational requirements through an individually designed course of studies. The Education Program is under the counsel and guidance of the staff of the Lutheran Deaconess Association. Inquiries should be directed to the Director of Student Services, Deaconess Hall.

Preparation for Seminary Entrance. Students may prepare themselves for seminary entrance by enrolling in the pre-seminary program of Valparaiso University. This program meets all the standards of the Association of Theological Schools for undergraduate education, as well as the entrance requirements of all Lutheran and Protestant seminaries. Upon graduation from this program, students are accepted in the seminaries not only of the Lutheran Church-Missouri Synod but of all Lutheran bodies, in the seminaries of other church bodies, and in graduate divinity schools throughout the country.

Vance

A student who is interested in preparing for seminary entrance is assisted by an adviser in selecting appropriate undergraduate courses. These include studies in the arts and humanities, in theology, in the biblical languages, and in areas of the student's own special interest.

The University's Center for Church Vocations maintains an up-to-date library of catalogs from seminaries and divinity schools around the country and arranges for pre-seminary students to meet with representatives of a number of these schools. It also provides guidance for students who desire to know more precisely what the ministry entails or who seek to clarify their sense of call into the ministry.

Further information on this program is available from the chairperson of the Department of Theology.

INDEPENDENT GROUP STUDY PROGRAM. This Program is administered by the Dean of the College for students who desire to work as a group on an academic project.

Group Studies 100.

Independent Group Study Project. Each sem. Cr. 1-3. An independent group project is conducted on a topic selected by the group. Grading is limited to the use of S or W. Prerequisites: Approval of a faculty sponsor and the Dean of the College of Arts and Sciences.

A proposal for an independent group study project must be submitted to the Dean of the College of Arts and Sciences at least three weeks before the beginning of the registration period for the semester in which the project is to occur.

Further details and an application form may be obtained at the Office of the Dean of the College of Arts and Sciences.

HONORS WORK. Honors work is designed for students of exceptional ability who might benefit by earning a limited number of the credits required for graduation through supervised independent study rather than through regular course work. Students making application for Honors Work should understand that their work will be evaluated according to the highest standards of scholarly achievement. Honors Work may be taken by students of the College of Arts and Sciences only in the humanities, the social sciences, the natural sciences, and religion. It may be taken only by candidates for the degree of Bachelor of Arts or Bachelor of Science.

A student who has completed at least 80 semester hours, but has not yet entered upon the work of the last two semesters, and who has a cumulative grade-point average of at least 3.0 and a grade-point average in the major of at least 3.5 may apply to the Dean's Office for admission to Honors Work with the consent of the chairperson of the major department.

A student making application for admission to Honors Work must present a plan for a major independent study project to be undertaken under the supervision of a member of the major department. This plan must be approved by the chairperson of the major department and submitted to the Committee on Honors no later than the end of the student's junior year. If the proposed independent study project is approved, the student shall enroll in the first semester of the senior year in course numbered 197 of the major department, "Honors Work."

Source

A student who has been admitted to Honors Work must present four (4) copies of a completed draft of the independent study project to the chairperson of the major department at least seven days prior to the beginning of the final examination period of the fall semester. The project will be judged by a committee consisting of the chairperson of the major department, the adviser/sponsor, one departmental reader, and one outside reader appointed by the Committee on Honors. If the work presented is found worthy of Honors by the examining committee, the student will be granted three credits with a grade of A— or A for the independent study project and admitted to candidacy for graduation "With Honors" in the major field. If the essay is not found worthy of honors, the Dean's Office, upon consultation with the examining committee, may recommend that the student be granted 3 semester credits for Independent Study in the major department with a grade determined by the Committee.

If admitted to candidacy for Honors, the student shall register during the spring semester of the senior year in course 198 of the major department, "Honors Candidacy." A student admitted to Honors Candidacy must complete the initial draft of the independent study project, incorporating additions or revisions suggested by the examining committee to its satisfaction. Six (6) copies of the completed project must be delivered to the chairperson of the major department at least fifteen days prior to the beginning of the final examination period of the spring semester. The original examining committee shall then schedule an oral examination for the Honors candidate to assess the student's knowledge of matter covered in the independent study project and any other closely related matters deemed appropriate by the Committee. The Honors candidate shall be apprised beforehand of the related matters to be included in the examination. If, in the opinion of the examining committee the candidate is worthy of honors, it shall recommend to the Dean that the student be awarded three (3) credits with a grade of A— or A for course 198, "Honors Candidacy," and be graduated "With Honors" in the major field. If the candidate is not deemed worthy of Honors, the Dean's Office, upon consultation with the examining committee, may recommend that the student be granted 3 semester credits for Independent Study in the major department with a grade determined by the Committee.

During the semester or semesters engaged in Honors Work, the student will not be permitted to carry more than 12 credit hours in addition to Honors Work. A student enrolled in "Honors Candidacy" will be excused from all regular final examinations of the last semester of the senior year.



Feaster

AMERICAN STUDIES

Administrative Committee: Professor Feaster (English), Chairman; Professor Trost (Political Science); Associate Professors Albers (Theology), Brauer (Art), Janke (Geography), Kohlhoff (History), Martinson (Sociology), J. Nuechterlein, and Sponberg (English); Assistant Professors O'Toole (Economics) and Piehl (Christ College).

Students completing the Program in American Studies will have fulfilled concentration requirements for the Bachelor of Arts degree under the Program Option.

Objectives. The Program in American Studies offers the undergraduate student an opportunity to study the whole civilization of the United States—its fundamental ideas, institutions, and symbolic expressions as these have developed over time. This common subject matter is examined through a variety of methods and materials that reach across traditional disciplines. The student must therefore become familiar with the approaches of the social sciences, the fine arts, and humanities as these bear on the subject of American civilization. By drawing together these different perspectives, American Studies enables the student to attain a broad vision of the civilization, while deepening his understanding of what is both unique and universal about the United States.

Valparaiso University has special resources for the student in American Studies. Among these are the Library of American Civilization, containing more than 15,000 volumes of American materials on microfiche; the Sloan Art Gallery, with special collections of American painting; and the Washington Semester Program in American Studies, which allows students to spend a semester in Washington, D.C., and intern at such institutions as the National Gallery and the Smithsonian.

Program Requirements. A minimum of 48 credit hours in courses approved by the Administrative Committee. Courses must include the 24 credits designated in the Program Core and an additional 24 credits selected from the list of Approved Elective Courses. The student and the chairperson of the Committee on American Studies, who is adviser for all students in the program, may select courses that fulfill individual academic or career objectives. Courses not included in the list of approved electives may be substituted in some instances if they are approved by the Chairperson of the Committee.

Area Minor in American Studies. A student fulfilling concentration requirements under the Major Option may present an area minor in American Studies for the required minor. Requirements for the minor are: a minimum of 24 credits in courses approved by the Committee on American Studies. Courses must include at least 12 credit hours selected from the Program Core. The remaining credit hours are selected from the listing of Approved Elective Courses.

Program Core

Art 111

American Architecture and Design
or

Credits
3

English 101	American Painting	3
English 102	American Literature I	3
Geography 174	American Literature II	3
History 20	Historical Geography of the United States	3
History 21	American History to 1865	3
Political Science 2	American History since 1865	3
Theology 121	Government of the United States	3
	The American Religious Experience	3

Elective Courses

Art 111	Topics in Art: Modern Art since 1945	3
Christ College 140	Topic: America at the Movies	3
Christ College 160	Seminar: Modern American Social Thought	3
Christ College 180	Seminar: Literature of the American Dream	3
Economics 150	Economic History of the United States	3
English 165	Studies in American Literature	3
English 195	Topics in Literature	3

(Note: The Department of English offers courses under both of the above headings that are applicable to the American Studies Program.

Recent offerings include Literature of the South, The American Dream, Literature and History of the 1920's in America.)

Geography 74	North American Indian	3
Geography 100	Regional Geography of the United States and Canada	3
History 121	The American Revolution, 1763-1789	3
History 122	Slavery, Abolitionism, and Sectionalism, 1815-1860	3
History 123	Civil War and Reconstruction	3
History 124	Depression and War: The United States, 1929-1945	3
History 125	The Age of Anxiety: The United States since 1945	3
History 126	American Constitutional History	3
History 127	History of American Political Parties	3
History 175	Research Seminar	3

(Note: The Department of History frequently offers seminars that are applicable to the American Studies Program. Recent offerings include The American South, The Jim Crow Era, Slavery in the Americas, American Social Reform, History of American Thought.)

Philosophy 54	Studies in the History of Modern Philosophy:	
	American Philosophy	3
Political Science 41	State and Local Politics	3
Political Science 155	Problems in State and Local Politics	3
Political Science 156	Problems in American Politics	3
Political Science 158	Problems in Political Philosophy: American Democratic Thought	3
Political Science 160	Constitutional Law I	3
Political Science 161	Constitutional Law II	3
Social Work 130	American Minority Lifestyles and Human Rights	3

Sociology 100	Topic: Urban Sociology	3
Sociology 100	Topic: Social Class and Life Styles	3
Sociology 100	Topic: Women in Society	3
Sociology 170	Topic: The American People	3
Speech/Drama 137	Modern American Theatre and Its Literature	3
Theology 122	History of Lutherans in America	3

ART

Associate Professors

Richard H. W. Brauer
M.S., Illinois Institute of Technology
Richard R. Caemmerer, Jr. (on leave)
M.F.A., Indiana University
Frederick L. Frey
M.F.A., University of Wisconsin

Assistant Professors

JoEllen Hemphill Smith
(acting chairwoman)
M.S., Indiana University
George Strimbu
M.S., Illinois Institute of Technology

Visiting Lecturer

Axel von Criegern (Art and Humanities)
Ph.D., Eberhard-Karls Universität
(Tübingen)

Degrees. Completion of the degree requirements of the College of Arts and Sciences with a major in art leads to the degree of Bachelor of Arts (B.A.) intended to provide a general art background, or the degree of Bachelor of Science in Fine Arts (B.S.F.A.) primarily intended for students desiring to continue their training at the professional or graduate school level. See page 36 for requirements for the B.S.F.A. degree.

Specialization in Art Education is possible in either the B.A. or the B.S.F.A. program; consult the Department of Education concerning state and University requirements.

Major. A minimum of 30 credits in art which must include Art 21, 31, 32, 101, 102, 121, and 151. The Bachelor of Science in Fine Arts degree requires 54 credits in art, which in addition to the core requirements for the major must include Art 22, 61, 111 or 120, and 196.

After completion of the core courses for each degree, a concentration must be chosen in painting, sculpture, ceramics, photography, design, or art history. Recommendation for admission to the B.S.F.A. program requires a portfolio presentation to the faculty of the Department of Art by the beginning of the junior year. Descriptions of the specialized programs as well as suggested curricula are available from the department chairperson. Field trips, art exhibitions, visiting artists, and similar events are integral parts of the program of the Department of Art.

Minor. A minimum of 15 credits in art constitutes a minor. Art 21, 31, 32, and 101 or 102 must be included.

Approval of Schedules. Students taking a major or a minor in art must have their schedules approved by the chairperson of the department at the beginning of each semester. Students who expect to teach art should consult, as early as possible, with the appropriate adviser in the Department of Education concerning state and University requirements.

Undergraduate and Graduate Credit.

THEORY AND HISTORY.

101. Art History I. Cr. 3. A survey of art history from prehistoric times through the Gothic period. Field trip.

102. Art History II. Cr. 3. A survey of art history from the Renaissance to the present. Field trip.

111 (211). Topics in the Theory and History of Art. Cr. 1-4. An investigation of major periods or developments in the visual arts. Included may be historical topics such as Ancient, Medieval, Renaissance, Baroque, American Art since 1945; or Architecture; or theory topics such as aesthetics, modern design, or color. May be repeated for credit provided topic is different.

120 (220). Modern Art. Cr. 3. A study of the major developments in painting and sculpture in the nineteenth and twentieth centuries. Field trip. Prerequisites: Art 101, 102, or consent of instructor.

PRACTICE.

21. Drawing. 0+6, Cr. 3. A basic course in the fundamentals of drawing using various media.

22. Drawing: Advanced Studies. 0+6, Cr. 3. A study of more advanced techniques and problems involving the drawing media, to include the human figure. Prerequisite: Art 21.

25. Art/Occupational Therapy. 2+3, Cr. 3. An introduction to the field of art and occupational therapy. Lecture and materials workshop.

31. Design I. 0+6, Cr. 3. A course introducing the basic elements and principles of two-dimensional and three-dimensional design. Field trip.

32. (Formerly 33). Design II. 0+6, Cr. 3. A continuation of Design I, which is a prerequisite.

51. Ceramics. 0+6, Cr. 3. Basic ceramic processes including wheel throwing, hand building, decorative techniques, and various firing methods.

52. Ceramics: Advanced Studies. 0+6, Cr. 3. Advanced problems in clay construction and glaze formulation with opportunities for specialization. Prerequisite: Art 51.

61. Photography. 0+6, Cr. 3. Problems in forming photographic images for expressive aesthetic purposes with instruction in camera and darkroom techniques. Field trip.

62. Photography: Advanced Studies. 0+6, Cr. 3. A study of more advanced techniques and problems in photography. Field trip. Prerequisite: Art 61.

65. Photojournalism. Cr. 3. Study of photography for publications, camera and darkroom techniques. Principles and production of single photographic images, photo series, photographic essays, the photo layout, and slide/sound presentation. Field trip.

74. Art of Fiber. 0+6, Cr. 3. A basic course in fiber manipulation, including loom weaving, tapestry, coiling, and soft sculpture.

75. Art of Fiber: Advanced Studies. 0+6, Cr. 3. Advanced techniques and problems in the art of fiber. Prerequisite: Art 74.

81. Crafts. Cr. 0-3. Basic workshop experience in selected crafts such as jewelry, stained glass. May be taken more than once if topics are different.

121. Painting. 0+6, Cr. 3. Problems in painting in oil and other media. Prerequisite: Art 21.

122. Painting: Advanced Studies. 0+6, Cr. 3. A study of more specialized problems in the painting media, such as composition, glazing, acrylics, dimensional surfaces, etc. Prerequisite: Art 121.

131. Graphic Design I. 0+6, Cr. 3. Problems in the design of graphic mass communications with instruction in typography, layout, and finished art preparation. Course problems may center on such fields as advertising graphics, publications graphics, or typography and trademarks. This course may be repeated for credit if the problem fields are different. Field trip.

132. Graphic Design II. 0+6, Cr. 3. A continuation of Art 131, dealing with actual graphic communications problems. The student solutions may often be printed and used. Field trip. Prerequisites: Art 31 and 131.

151. Sculpture. 0+6, Cr. 3. Problems in forming sculptural statements in various materials and techniques such as concrete casting, metal welding, wood construction, etc. Field trip. Prerequisites: Art 21 and 33 or consent of the instructor.

152. Sculpture: Advanced Studies. 0+6, Cr. 3. Advanced problems in the sculpture processes. Field trip. Prerequisite: Art 151.

161. Printmaking. 0+6, Cr. 3. An introduction to print techniques and composition. Prerequisite: Art 21.

162. Printmaking: Advanced Studies. 0+6, Cr. 3. The student may work in any of the printmaking processes previously examined in Art 161. Prerequisite: Art 161.

TEACHING.

109. Elementary School Art—Methods and Materials Workshop. 0+6, Cr. 3, or 0+8, Cr. 4. A basic course providing the prospective teacher with studio experiences in the selection, organization, and use of two- and three-dimensional art and craft materials for the elementary school. The fourth credit provides opportunities to work in elementary classrooms. This course may not be counted toward a minimum major or a minor in the department. Field trip.

110. Secondary and Middle School Art—Methods and Materials Workshop. 0+8, Cr. 4. A basic course providing the prospective teacher with studio experiences in the selection, organization, and use of two- and three-dimensional art materials for the middle, junior, and senior high schools. This course may not be counted toward a minimum major or a minor in the department. Field trip.

191. The Teaching of Visual Arts. Cr. 2 (See Education 191.) A study of the methods of teaching art in the secondary schools. This course may not be counted toward a major or a minor in the department. Prerequisite: admission to Supervised Teaching.

SPECIAL STUDIES.

196. Senior Seminar. Cr. 3. Independent work in a major's specialized program, combined with participation in group discussion and other special events. This work will result in a senior exhibition and portfolio. Prerequisite: senior standing in B.S.F.A. program.

198 (*298). Special Studies. Cr. 1-4. (Graduate credit 1-3). Specialized work in the practice of art or the teaching of art arranged for by a professor and one or more advanced students. Included may be, for example, work in the crafts, in liturgical design, etc. A Satisfactory/Unsatisfactory grade may be given if so stipulated at the beginning of the course. May be repeated for credit. Prerequisites: upperclass major and consent of the instructor. A formal written proposal is required prior to registration, and the proposal will become a permanent part of the student's file. Prerequisite for graduates: undergraduate art major.

ASIAN STUDIES

Administrative Committee: Associate Professor Schoppa (History), Chairman; Professors Kallay (Geography), Scheimann (Philosophy), and Trost (Political Science); Assistant Professor Juneja (English).

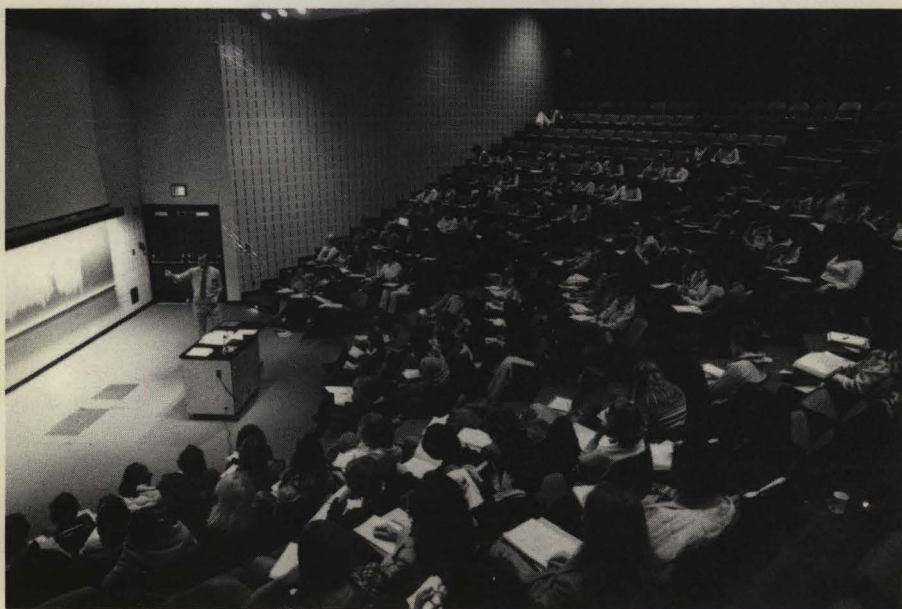
An area minor in Asian Studies may be presented in partial fulfillment of concentration requirements for the Bachelor of Arts degree under the Major Option.

*No more than six hours may count toward Master's degree.

Objectives. The area minor in Asian Studies provides an opportunity for students to focus study upon a geographical area of crucial importance. Study in this area allows students to familiarize themselves in some depth with a culture and heritage quite different from their own.

Requirements. 18 credit hours selected from the following list of courses approved by the Administrative Committee. Other appropriate courses may be substituted with the permission of the chairperson of the Committee.

		Credits
English 195	Topics in Literature: Indian Literature	3
Geography 104	Regional Geography: Asia	3
History 40	Traditional East Asian Civilization	3
History 41	Modern East Asian Civilization	3
History 141	History of Modern China	3
History 142	History of Modern Japan	3
History 160	Topics in History: Asian Themes (topics will vary)	3
History 172	Reading and Discussion Seminars: Asian Topics (topics will vary)	2-3
Philosophy 54	Studies in the History of Modern Philosophy: From Marx to Mao	3
Philosophy 55	Non-Western Philosophy	3
Political Science 154	Politics of Developing States	3
Theology 60	History of Religions	3
Theology 162	Understanding Islamic Religion and Culture	3
Theology 163	Religions of China and Japan	3
Theology 164	The Buddhist Tradition	3



Krekeler

BIOLOGY

Professors

Robert J. Hanson
Ph.D., University of Illinois
Carl H. Krekeler (chairman)
Ph.D., The University of Chicago
Frederick R. Meyer
Ph.D., Indiana University
Kenneth E. Nichols
Ph.D., The University of Chicago
James C. Tan
Ph.D., North Carolina State University
at Raleigh

Associate Professors

Garland F. Hicks, Jr.
Ph.D., Michigan State University
Gayton C. Marks
M.S., University of Michigan

Assistant Professor

Grayson S. Davis
Ph.D., University of Virginia

Professor Emeritus

William W. Bloom

Biology is the disciplined study of living organisms. It is also a vital part of liberal education, enabling students to develop an appreciation of their own biological being as well as of the great variety of organisms and communities of organisms with which they come into contact and upon which they are dependent.

The focus of biology may be at many levels: molecular, cellular, organismic, population, community, ecosystem. The department's program of study provides an introduction to each of these levels. Moreover, it is designed to meet the requirements of students who desire to do graduate study in one of the biological sciences, who plan to enter professional schools (such as medicine, dentistry, osteopathy, medical technology, and a variety of other health-related fields), who wish to enter a teaching career in biology, or who will work in industrial or governmental positions.

In addition to a balanced curriculum and a staff with specialties in each of the areas represented in the curriculum, the department provides a great variety of facilities and items of equipment for its students. These are especially available to students in their junior and senior biology courses and to those who undertake research projects under individual staff supervision.

Major. A minimum of 28 credits in biology. Courses must include Biology 50, 56, 57, 61 (or 62), 63, and 72; one of courses 64, 65, 66, or 67; at least three of courses 157, 159, 161, 170, 175; and at least two credits in 185, Biological Problems, and/or 193, Seminar in Biology.

Majors must include General Chemistry and Organic Chemistry 71 (or 107) in their program. The major's plan of study should also include courses in physics, mathematics, statistics, and additional chemistry. The most appropriate foreign languages for biology majors are German and French. Majors desiring a Bachelor of Science degree must meet the above listed course requirements, must earn a minimum of 32 credits in biology, and must include either Mathematics 36 (or its equivalent) or Computer Science 17 and 21 (or 22) in their program.

Minor. A minimum of 15 credits in biology constitutes a minor.

Approval of Schedules. All students taking a major or a minor in the department and all students planning to teach biological subjects must have their schedules approved by the chairperson of the department at the beginning of each semester.

Note: Entering students who test out of the Unity of Life, 50, by taking a departmental examination will be granted 4 credits toward graduation.

Undergraduate and Graduate Credit.

41. Anatomy and Physiology. 2+2, Cr. 3 or 3+2, Cr. 4. A course of the human body's structure and function. Lecture and laboratory work deal with the cells, tissues; and organs of the integumentary, skeletal, muscular, nervous systems, and special senses; the circulatory, lymphatic systems and blood; the excretory, digestive, respiratory, endocrine, and reproductive systems; fluid and electrolytes, the reticuloendothelial system, the general adaptation syndrome, and human development. (Given in St. Louis, Ft. Wayne, and Cleveland Divisions only.)

42. Anatomy and Physiology. 2+2, Cr. 3 or 3+2, Cr. 4. A continuation of Biology 41. (Given in St. Louis, Ft. Wayne, and Cleveland Divisions only.)

46. Microbiology. 2+2, Cr. 3. A study of micro-organisms and their relation to health and disease. (Given in St. Louis, Ft. Wayne, and Cleveland Divisions only.)

***50. Unity of Life.** 3+3, Cr. 4. An introductory course designed to give the student a broad view of the principles of biology as related to the nature and activities of protoplasm and the structure, physiology, ecology, reproduction, growth and development of organisms. These principles are considered in historical perspective and include examples from microbes, plants, and animals. No prerequisite.

56. Diversity of Plants. First seven weeks. 2+4, Cr. 2. A survey of the plant kingdom. Modern classification systems are considered. Emphasis is on the structures and their functions, possible evolution, life cycles, development, ecology, distribution, and social and economic importance of representative members. This course, together with Biology 57, may be used to fulfill natural science general education requirement. Prerequisite: Biology 50.

57. Diversity of Animals. Second seven weeks. 2+4, Cr. 2. A survey of the animal kingdom. Emphasis is on the structures and their functions, possible evolution, life cycles, development, ecology, distribution, and social and economic importance of representative members. This course, together with Biology 56, may be used to fulfill natural science general education requirement. Prerequisite: Biology 50.

61. Genetics. 2+3, Cr. 3. An introductory study (lecture problems, laboratory) of the basic laws of genetics, the physical and chemical basis of inheritance, genes as functional and structural units of heredity and development, and qualitative and quantitative aspects of genetic variation. Prerequisite: Biology 50. (May not be counted toward the minimum General Education Requirement in Natural Science and Mathematics. See Biology 62.)

62. Genetics. 3+3, Cr. 4. Same as Genetics 61 with additional lecture topics on human genetics and social implications. May be used in partial fulfillment of the General Education Requirement in Natural Science and Mathematics. Prerequisite: Biology 50.

63. Evolutionary Biology. 1+0, Cr. 1. A study of the theory of organic evolution, especially the mechanisms currently postulated. Emphasis is on population genetics and speciation. Normally accompanied by Biology 64, 65, or 66. Prerequisite: Biology 61 or 62. This will be offered as a short course.

64. Entomology. 1+4, Cr. 2 or 1+7, Cr. 3. Lectures, laboratory, and field work dealing with the systematics and basic biology of insects and their arthropod relatives. Normally accompanied by Biology 63. Prerequisite: Biology 57. Not offered 1981-1982.

65. Systematic Botany. 1+4, Cr. 2 or 1+7, Cr. 3. Lectures, laboratory, and field work dealing with the systematics and basic biology of the seed plants. Normally accompanied by Biology 63. Prerequisite: Biology 56. Not offered 1981-1982.

66. Ornithology. 1+4, Cr. 2 or 1+7, Cr. 3. Lectures and field work dealing with the systematics, basic biology, and identification of birds. Normally accompanied by Biology 63. Prerequisite: Biology 57. Not offered 1982-1983.

67. Comparative Vertebrate Anatomy. 1+4, Cr. 2 or 1+7, Cr. 3. A comparative study of representative vertebrate animals, with emphasis on laboratory dissections. Prerequisite: Biology 57.

*Credit for Biology 50 may be earned through the College Level Examination Program (CLEP) subject examination in Biology.

72. Introduction to Molecular Biology. 1+0, Cr. 1. Lectures on the chemical nature and behavior of biological macromolecules: polysaccharides, proteins, nucleic acids, and lipids. Prerequisites: Biology 61 (or 62) and Chemistry 71 (or 107). This will be offered as a short course.

101. Biological Topics. Cr. 2-3. A consideration of various topics in biology through lectures, laboratory work, field work, and/or conferences. The topics presented are related to staff and student interests. May be taken more than once if topics are different. A sample of recent offerings is: Experimental Botany, Endocrinology, Mycology, Human Physiology, Environmental Microbiology. Prerequisites: Biology 50 and consent of the instructor.

105 (205). Biochemistry. (Also offered as Chemistry 105-205). 4+0, Cr. 4. (Graduate credit 3). The chemistry of proteins, carbohydrates, fats, and nucleic acid, and the changes these undergo during processes of digestion and metabolism; stress on physical biochemistry topics and enzyme kinetics. Prerequisite: Chemistry 71 or equivalent.

110. Microbiology. 2+5 or 3+3, Cr. 4. A study of bacteria, viruses, and selected fungi. Major emphasis is given to understanding infectious disease and immunology. Prerequisites: Biology 50 and Chemistry 44 or 52. (May not be credited toward graduation by students who take Biology 159.)

115. Anatomy and Physiology. 2+5, Cr. 4. A study of the structure and function of the organs and systems of the human body. Prerequisites: Biology 50 and Chemistry 44 or 52.

157 (257). Ecology. 2+5, Cr. 4. (Graduate credit 3). A study of organisms in relationship to their physical and biotic environment. There is considerable field work in local terrestrial and aquatic habitats. Prerequisite: Biology 64, 65, or 66.

159 (259). Bacteriology. 2+6, Cr. 4. (Graduate credit 3). A study of the cell biology of bacteria and their viruses including morphology, growth and cultivation, physiology, environmental factors, and genetics. Prerequisites: Biology 61 (or 62) and 72 (may be taken concurrently).

161 (261). General Physiology. 3+3, Cr. 4. (Graduate credit 3). A study of the fundamental physiological activities of animal and plant cells and tissues. The course includes lectures, assigned readings, and laboratory work in cell structure and cell organelles, energy conversion and synthesis, membrane transport, and excitability and contraction. Prerequisite: Biology 72 (may be taken concurrently).

170 (270). Cytology. 2+3, Cr. 3. A study of the experimental cytology of eucaryotes including cell organelles, cellular and molecular basis of cytogenetics, somatic cell genetics, and methods for cytological analysis. Prerequisites: Biology 61 (or 62) and 72 (may be taken concurrently).

175 (275). Developmental Biology. 2+3, Cr. 3. An introduction to the descriptive and analytic study of plant and animal development and growth, with emphasis on higher plants and vertebrate animals. Prerequisites: Biology 61 (or 62) and 72 (may be taken concurrently).

185. Biological Problems. Cr. 1. Special research problems. Prerequisites: 14 credit hours in the department and consent of the chairperson of the department. A maximum of 4 credits in this course may be applied toward graduation. S/U grade optional.

191. The Teaching of Natural Sciences. Cr. 2. (See Education 191.) A study of the methods of teaching natural sciences in the secondary schools. Lectures, discussions, demonstrations, and projects. This course may not be counted toward a major or minor in this department. Prerequisite: admission to Supervised Teaching.

193. Seminar in Biology. Cr. 1. Student and staff presentation and discussion of selected topics in biology. A sample of current topics is: Bioethics, Biology of Algae, Biological Effects of Drugs, Biology of Sex, Endocrinology, Human Evolution, History of Biological Thought, Somatic Cell, Human Genetics, Immunology, Light and Life, Protozoology, Radiobiology. Prerequisites: 14 credit hours in the department or consent of the chairperson of the department; certain topics may have specific course prerequisites. At least three topics will be offered each semester so that during a two-year period a broad spectrum of topics will be available. A maximum of two seminars may be credited toward graduation. S/U grade optional.

BRITISH STUDIES

Vance

Administrative Committee: Professor Startt (History), Chairman; Professor Trost (Political Science); Associate Professors Henderson (Economics) and Sponberg (English).

An area minor in British Studies may be presented in partial fulfillment of the concentration requirements for the Bachelor of Arts degree under the Major Option.

Objectives. The British Studies Minor affords students the opportunity to study a body of knowledge as broad in scope as it is significant for the modern world. Great Britain has been the major laboratory not only of democracy but also of social reform, industrialization, and the development of economic and political theory. Its widely acclaimed genius in the literary arts has been matched by its political leadership and by advances made in social experimentation. Moreover, in developing the idea of constructive political evolution as opposed to revolution, it advanced one of the great political ideas of the last several centuries. The study of such experience and achievement, however, exceeds traditional disciplinary boundaries. Therefore, a "Studies" approach is a logical and feasible way to structure a minor in this field of study.

Requirements. A minimum of 24 hours constitutes a minor. Courses must include 4 courses (12 hours) from the required Core of Courses and at least 4 elective courses (12 hours).

Program Core		Credits
*Economics.	Select one of the following three courses.	
Economics 155	Modern European Economic History	3
Economics 170	The History of Economic Thought	3
Economics 175	History of Socialist Economic Thought	3
English.		
English 148	British Literature in Its Historical and Critical Contexts II	3
*History.	Select one of the following two courses.	
History 113	History of Modern England	3
History 151	Modern Britain. Cambridge Study Center only	3
Political Science.		
Political Science 44	Comparative Politics	3
Elective Courses		
Economics 155	Modern European Economic History	3
Economics 170	The History of Economic Thought	3
Economics 175	History of Socialist Economic Thought	3
**Economics 199	Topics in Economics	3
English 109	Medieval Studies	3
English 110	Shakespeare	3

*Courses in the Economics and History categories that are not selected as a core course may be chosen as an elective.

**These courses may be used as an elective when the topic chosen is appropriate to the British Studies Minor.

English 120	Renaissance and Seventeenth Century Studies	3
English 130	Restoration and Eighteenth Century Studies	3
English 147	British Literature in Its Historical and Critical Contexts I	3
English 151	The Romantic Movement	3
English 152	Victorian Literature	3
English 156	The Novel	3
History 113	History of Modern England	3
History 114	The British Imperial Experience	3
History 151	Modern Britain. Cambridge Study Center only	3
**History 160	Topics in History	3
**History 172	Reading and Discussion Seminars	2-3
**History 180	Supervised Study	2-3
Philosophy 53	History of Early Modern Philosophy	3
Political Science 153	Politics of Industrial States: British Politics	3

CHEMISTRY

Professors

A. Gilbert Cook (chairman)
Ph.D., University of Illinois
William L. Leoschke
Ph.D., University of Wisconsin
Edgar H. Nagel
Ph.D., Northwestern University
Theodore C. Schwan
Ph.D., University of Notre Dame
L. Oliver Smith
Ph.D., University of Rochester

Associate Professor

Byron L. Ferguson
M.A., Indiana University

Assistant Professor

Warren M. Kosman
Ph.D., The University of Chicago

Professors Emeriti

John F. Deters
Raymond G. Larson

Chemistry is a discipline that studies the fundamental nature of matter, and the energetics and changes in properties accompanying compositional changes of matter. As a scientific discipline, chemistry is firmly rooted in the liberal arts tradition, placing emphasis on the development of intellectual ability and judgment. Yet it is also a very practical discipline dealing with the fundamental technology of matter that affects our environment and our society. Because of the nature of the discipline, a wide diversity of careers is possible with a chemistry major.

The Department's program provides a balance between theoretical and practical aspects of chemistry. Opportunities for carrying out directed or honors work research are available. A wide selection of instruments is maintained for student use in instruction and research. The Chemistry Club, an affiliate of the American Chemical Society, provides extracurricular opportunities for those students interested in chemistry. The Department is approved by the American Chemical Society for the training of professional chemists. A student may choose to work toward a Bachelor of Arts degree which requires 24 credit hours in chemistry, toward a Bachelor of Science degree which involves 32 credit hours in chemistry, or toward a Bachelor of Science degree in Professional Chemistry which entails 40 credit hours in chemistry.

**These courses may be used as an elective when the topic chosen is appropriate to the British Studies Minor.

Major. A minimum of 24 credits in chemistry will meet the minimum major requirements for a B.A. degree. Courses must include Chemistry 52 (or 63), 64, and 108.

A minimum of 32 credits in chemistry will meet the minimum major requirements for a B.S. degree. Courses must include Chemistry 52 (or 63), 64, 108, and 101 (or 121).

Chemistry majors desiring a B.S. degree which is approved by the American Chemical Society for the Training of Professional Chemists should complete not less than 40 credit hours in chemistry. This major must include Chemistry 52 (or 63), 64, 80, 108, 122, 134, 138, 150, and one other advanced course selected from 140, 160, 195 and 196, or an advanced course in physics or mathematics. One year of physics and two years of mathematics through differential equations and linear algebra are required. The foreign language, German, is recommended.

Minor. A minimum of 16 credits in chemistry constitutes a minor. Chemistry 64 and 71 (or 107) must be included.

Approval of Schedules. All students taking a major or a minor in the department must have their schedules approved by the chairperson of the department at the beginning of each semester. Students who pass the Chemistry Placement Examination (4 credits) and successfully complete Chemistry 63 (4 credits) will be granted 8 credits toward graduation.

Undergraduate and Graduate Credit.

***43. General Chemistry.** 3+2, Cr. 4. Intended for students who elect chemistry to meet one of the natural science requirements. It is a study of the principles of chemistry. Students taking a major or minor in Elementary Education, Home Economics, Nursing, or Physical Education should take this course to meet their chemistry requirement. (Not open to students who have taken Chemistry 51.)

***44. General Chemistry.** 3+2, Cr. 4. A continuation of Chemistry 43. It includes the study of organic chemistry and biochemistry. The laboratory work includes organic and biochemical laboratory procedures. (Not open to students who have taken Chemistry 52). Prerequisite: Chemistry 43 or 51.

47. General Chemistry. 3+2, Cr. 4 or 4+2, Cr. 5. This course consists of an introduction to inorganic, organic and physiological chemistry. (Given in St. Louis, Ft. Wayne, and Cleveland Divisions only).

48. Pharmacology. Cr. 2-3. Introduces the principles of pharmacology with emphasis on commonly used groups of drugs as a foundation for further study in clinical nursing courses. (Given in St. Louis and Ft. Wayne Divisions only).

***51. General Chemistry.** 3+3, Cr. 4. An introductory course in the fundamental principles of chemistry designed primarily for students who wish to pursue a scientific vocation. It is required of majors and minors in chemistry, and students in the pre-medical, pre-dental, or medical technology curricula except for students who take Chemistry 63.

51E. General Chemistry. 3+2, Cr. 4. Same as Chemistry 51 except for laboratory hours. Intended for engineering students.

***52. General Chemistry.** 3+3, Cr. 4. A continuation of Chemistry 51. Semi-micro inorganic qualitative analysis is included in the laboratory work. Prerequisite: Chemistry 51.

52E. General Chemistry. 3+0, Cr. 3. Same as Chemistry 52 except for laboratory hours and more emphasis on organic chemistry. Intended for engineering students. Prerequisite: Chemistry 51E.

*Credit for Chemistry 51 and 52 (or 43 and 44) may be earned through the College Level Examination Program (CLEP) subject examination in General Chemistry.

55. Physiological Chemistry. (Also offered as Home Economics 65.) 3+0, Cr. 3. The chemistry of proteins, carbohydrates, and fats, and the changes these undergo during processes of digestion and metabolism; brief consideration of enzymes, vitamins, and the chemistry of food processing. This course may not be counted toward a major or minor in chemistry. Prerequisite: Chemistry 44.

60. Symmetry in Chemistry. 7 weeks. Cr. 1. A qualitative introduction to the significance of symmetry in chemistry including the topics of molecular geometry, symmetry elements and operations, Schoenflies point group classification, and molecular orbital nomenclature. Prerequisite: Chemistry 51 or 63.

63. General Chemistry. 3+3, Cr. 4. An accelerated introductory course in the fundamental principles of chemistry for students with a strong background in chemistry. The laboratory includes semi-micro inorganic qualitative analysis. This is the introductory course that would normally be taken by the student planning to enter the chemical profession or graduate work in chemistry. Admittance by special examination.

64. Quantitative Analysis. 3+4, Cr. 4. A study of the theory of chemical equilibria, electrochemistry and elementary chemical analysis. The laboratory work consists of an introduction to gravimetric, volumetric, and instrumental methods of analysis. Prerequisite: Chemistry 52 or 63.

71. Organic Chemistry. 3+3, Cr. 4. An introductory survey of the nomenclature, reactions, structure, and properties of carbon compounds. Prerequisite: Chemistry 52 or 63. This course is designed for those students needing a one-semester survey of organic chemistry.

80. Electronics and Scientific Instrumentation. (Also offered as Electrical Engineering 80.) 2+3, Cr. 3. Modern electronic principles and devices are studied, with applications to scientific instrumentation. Laboratory experience with modern instruments is emphasized and simple troubleshooting techniques are taught. Prerequisites: Physics 77 or concurrent enrollment and sophomore standing.

101 (201). Elementary Physical Chemistry. 3+3, Cr. 4. (Graduate credit 3). A one-semester course in physical chemistry covering elementary thermodynamics and kinetics, together with their applications to various chemical systems. Prerequisites: Chemistry 64 and 107 or equivalent. (Not open for credit to students who have taken Chemistry 121.)

105 (205). Biochemistry. (Also offered as Biology 105-205). 4+0, Cr. 4. (Graduate credit 3). The chemistry of proteins, carbohydrates, fats, and nucleic acid, and the changes these undergo during processes of digestion and metabolism; stress on physical biochemistry topics and enzyme kinetics. Prerequisite: Chemistry 71 or equivalent.

107. Organic Chemistry. 3+3, Cr. 4. An introductory survey of the nomenclature, reactions, structures, and properties of carbon compounds. Prerequisite: Chemistry 52 or 63.

108. Organic Chemistry. 3+3, Cr. 4. A continuation of Chemistry 107. A further study of the reactions, structures, and properties of carbon compounds, including reaction mechanisms and complex organic reactions. Prerequisite: Chemistry 107.

121. Physical Chemistry. 3+3, Cr. 4. A theoretical study of chemistry involving thermodynamics, kinetics and modern structural concepts. Prerequisites: Chemistry 64 and 107 (107 may be taken concurrently), Mathematics 76 or equivalent, and Physics 78.

122. Physical Chemistry. 3+3, Cr. 4. A continuation of Chemistry 121. Prerequisite: Chemistry 121.

130. Chemical Literature. 1+0, Cr. 1. Discussion and library work on the important sources of chemical information. Experience in the use of *Chemical Abstracts*, *Beilstein*, and chemical journals.

134. Analytical Chemistry. 2+4, Cr. 3. A study of the theory and practice of instrumental and other advanced analytical techniques. Prerequisite: Chemistry 122 (may be taken concurrently).

138 (238). Inorganic Chemistry. 3+0, Cr. 3. A systematic study of the elements and their compounds from the standpoint of the periodic law. Special theoretical topics in inorganic chemistry are discussed. Prerequisite: three years of chemistry.

140. Polymer Chemistry. 3+0, Cr. 3. An introduction to the study of macromolecules: their preparation, properties, reactions and uses. Emphasis will be on synthetic macromolecules. Prerequisite: Chemistry 108.

141. Experimental Polymer Chemistry. 0+6, Cr. 2. Experiments in the synthesis and characterization of polymeric materials. Prerequisite: Chemistry 140 (may be taken concurrently with Chemistry 140).

142. Seminar in Chemistry. Cr. 0 (Concurrent with 143-144.) Required of all junior forty-credit hour majors. They are expected to participate in discussions but are not required to present a report on a special topic in chemistry. Interested freshmen and sophomores are invited to attend. S/U grade.

143. Seminar in Chemistry. Cr. 1. Required of all senior forty-credit hour majors. Each student must prepare and present a report on a special topic in chemistry. S/U grade.

144. Seminar in Chemistry. Cr. 1. A continuation of Chemistry 143. S/U grade.

150 (250). Advanced Organic Chemistry. 1+8, Cr. 3. The lecture is devoted to a discussion of physical organic chemistry with experimental methods illustrated by modern organic analysis. The laboratory is devoted primarily to organic analysis by functional groups and by modern instrumental techniques. Prerequisites: Chemistry 108 and 101 or 121 or consent of the chairperson of the department.

160. Quantum Mechanics. 3+0, Cr. 3. The fundamental concepts of quantum mechanics are examined. Topics include state functions and their interpretations, the Schrodinger equation, approximation methods, multielectron atoms, and molecules. Prerequisite: Chemistry 122 or consent of the instructor.

191. The Teaching of Natural Sciences. Cr. 2. (See Education 191.) A study of the methods of teaching natural sciences in the secondary schools. Lectures, discussions, demonstrations, and projects. This course may not be counted toward a major or minor in this department. Prerequisite: admission to Supervised Teaching.

195. Special Problems in Chemistry. Cr. 1-2. A course for senior majors in chemistry. Each student attacks a chemical problem by study of the literature and by work in the laboratory. A written report is required. Prerequisite: senior standing in the department.

196. Special Problems in Chemistry. Cr. 1-2. A continuation of Chemistry 195. Prerequisite: Chemistry 195.

ECONOMICS

Associate Professors

James A. Bernard, Jr.
Ph.D., University of Notre Dame
Edward H. Heinze (chairman)
Ph.D., Fordham University
James P. Henderson
Ph.D., Northern Illinois University

Assistant Professor

James K. O'Toole
M.A., University of Detroit

Instructor

James A. Thornton
M.A., Marquette University

Major. A minimum of 33 credits in economics. Courses must include Economics 71, 72, 121, 122, 145, and one from among 150, 155, or 170. In addition to 33 credits in economics, Mathematics 36 or 52 or 72 and either Administrative Sciences 50 (GLM) or Mathematics 54 are also required.

Minor. A minimum of 18 credits in economics constitutes a minor. Economics 71, 72, and either Administrative Sciences 50 (GLM) or Mathematics 54 must be included.

Approval of Schedules. All students taking a major or a minor in the department must have their schedules approved by the chairperson of the department at the beginning of each semester.

Undergraduate and Graduate Credit.

***71. Principles of Economics—Micro.** Cr. 3. An introductory study of the central functions and problems of an economic system with emphasis on the determinants of consumer demand, producer supply, and their interaction in the marketplace. No prerequisite.

***72. Principles of Economics—Macro.** Cr. 3. An introduction to macro-economic analysis with emphasis on national income, consumer spending, investment, government, and monetary aspects. No prerequisite.

121 (221). (Formerly 186-286.) Intermediate Micro-Economic Theory. Cr. 3. A study of the theoretical concepts and analytical techniques which economists employ to interpret the process of resource allocation under various systems of economic organization. Prerequisites: Economics 71 and 72.

122 (222). (Formerly 187-287.) Intermediate Macro-Economic Theory. Cr. 3. A critical examination of theories of national income determination and of techniques for measuring and analyzing aggregate economic activity. Prerequisites: Economics 71 and 72.

123. Economic Fluctuations and Forecasting. Cr. 3. Techniques of forecasting, utilizing national income and financial market statistics. Use of trend analysis techniques, multiple regression, and econometric model building. Emphasis on applications of macroeconomics to both government and business policy making over time. Prerequisites: Economics 71 and 72, Administrative Sciences 50 (GLM) or equivalent.

124. (Formerly 175.) Managerial Economics. Cr. 3. A course in applied economics which emphasizes the use of microeconomics, statistics, and decision-theory in the process of making managerial decisions. Using problems and short case studies, topics such as estimating demand, cost and profit analysis, forecasting, capital budgeting, and location analysis will be discussed. Prerequisites: Economics 71 and 72 and Administrative Sciences 50 (GLM) or equivalent.

126. (Formerly 176.) International Economics. Cr. 3. A study of the basis for the gains from international trade including the effects of growth and development on a nation's welfare. Attention is also given to the effects of tariffs and other restrictions to trade. Balance of payments accounting, foreign exchange markets and international monetary institutions are covered during the last part of the course. Prerequisites: Economics 71 and 72.

128. (Formerly 181.) Economics of Developing Nations. Cr. 3. An analysis of economic variables, both theoretical and institutional, which characterize developing nations. Emphasis is placed on cyclical poverty, allocation of resources and policy planning. Prerequisites: Economics 71 and 72.

130. (Formerly 170.) Industrial Organization. Cr. 3. The analysis of the economic factors underlying the structure, conduct, and performance of American industry. Prerequisites: Economics 71 and 72.

131. (Formerly 171.) Government Regulation of Business. Cr. 3. A survey of government regulations of private business, monopoly and unfair competition with emphasis on health and safety regulations, consumer and environmental protection. Utilizing basic economic analysis, attention will be given to how regulation affects individuals and firms, the costs and benefits to society of regulation and the alternatives to the present approaches to regulation. Prerequisites: Economics 71 and 72.

133. (Formerly 183.) Economics of Labor. Cr. 3. The approach of workers and employers to the problems of labor; the development of trade unions and collective government regulation of labor relationships; and an economic analysis of wage-employment problems. Prerequisites: Economics 71 and 72.

135. (Formerly 182.) Urban Economic Problems. Cr. 3. An examination of the regional and spatial characteristics of cities with an emphasis on policies to correct urban problems. Transportation, housing, poverty, and discrimination plus other substantive urban problems will be analyzed and discussed. Prerequisites: Economics 71 and 72.

137. (Formerly 174.) Public Finance. Cr. 3. An analysis of the role of the public sector in a market economy. Public revenues and expenditures, fiscal administration, and taxation are considered as they relate to economic activity. Prerequisites: Economics 71 and 72.

*Credit for Economics 71 and 72 may be earned through the College Level Examination Program (CLEP) subject examination in Introductory Economics.

***139. (Formerly 185.) Money and Banking.** Cr. 3. A study of the institutions, principles and problems of money and banking in the U.S. Special attention is given to the basic elements of monetary theory and policies. Prerequisites: Economics 71 and 72.

145. (Formerly 88.) Econometrics. Cr. 3. The application of mathematical and statistical techniques to the analysis of economic problems. This includes the study of nonparametric statistical tests, single and multiple regression models and computer applications. Prerequisites: Economics 71 and 72, Mathematics 36 or 52 or 72, and Administrative Sciences 50 (GLM) or equivalent.

150 (250). (Formerly 178-278.) Economic History of the United States. Cr. 3. The history of the economic development of the United States from the colonial period to the present. Prerequisites: Economics 71 and 72.

155. (Formerly 177.) Modern European Economic History. Cr. 3. A history of the economic development of Western Europe from 1750 to the present. Emphasis is placed on the role of the industrial revolution and its impact on the modern person. Prerequisites: Economics 71 and 72.

160. (Formerly 168.) Comparative Economic Systems. Cr. 3. A comparative analysis of political theories and the economic systems that derive from those theories. The course will focus on those ideological assumptions that result in capitalism, socialism, facism, anarchism, etc., as the solution to economic problems.

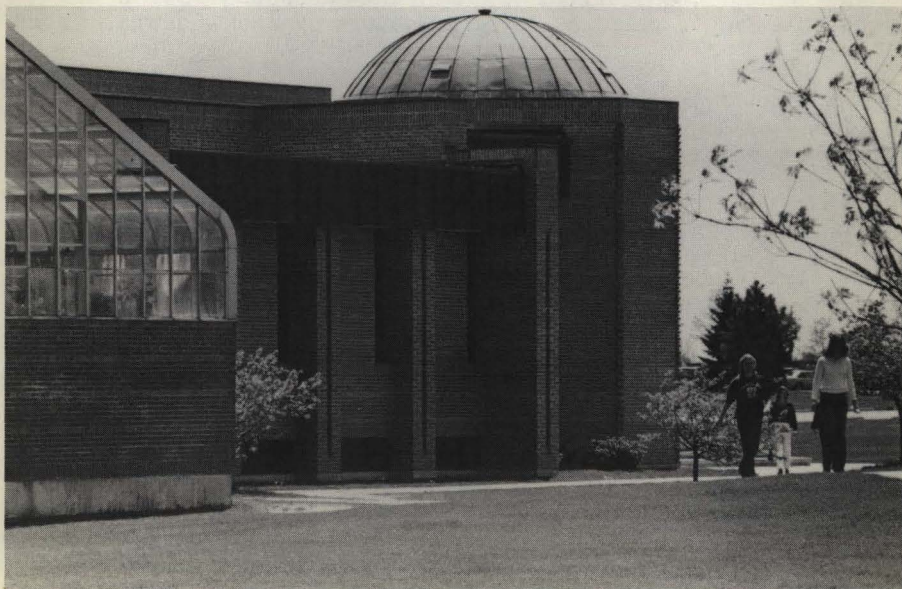
170 (270). (Formerly 189-289.) The History of Economic Thought. Cr. 3. Economic thought in its historical development from the Mercantilists to the present day. Prerequisites: Economics 71 and 72.

175. (Formerly 179.) History of Socialist Economic Thought. Cr. 3. The historical development of the economic ideas of the important socialists and schools of socialist thought. No prerequisite.

198. Independent Study in Economics. Cr. 1-3. Independent study to be approved by the chairperson and advising economics professor.

199 (299). Topics In Economics. Cr. 3. A course in which a special topic in economics will be given intensive study. The topic will vary from year to year. Prerequisites: Economics 71 and 72. Recommended for senior or graduate students.

*Credit for Economics 139 may be earned through the College Level Examination Program (CLEP) subject examination in Money and Banking.



EDUCATION

Professors

Bernhard Hillila
Ed.D., Columbia University
Leonard H. Kochendorfer
Ph.D., University of Texas
Gerald P. Speckhard (chairman)
Ed.D., University of Colorado

Associate Professors

Ann L. Relser
Ph.D., Michigan State University
Eugenia A. Stiemke
M.A., The Johns Hopkins University
Wayne E. Swihart
M.A., Ohio State University

Assistant Professors

Marcella S. Anderson
Ed.D., Temple University
Mary Ann Link
Ed.D., University of Florida
Lawrence J. Lottmann
M.Ed., Wayne State University
Robert S. Lucking
Ph.D., University of Nebraska

Professors Emeriti

Alfred C. Koester
Paul W. Lange
Dana B. Schwanholt

The Department of Education offers programs of study leading to certification for elementary and secondary teaching. In addition, the teacher trainee may add specialization in reading, junior high/middle school, or special education (learning disabilities).

Accreditation. Valparaiso University is accredited by the National Council for Accreditation of Teacher Education to prepare elementary and secondary teachers on the undergraduate level. It is a member of the American Association of Colleges for Teacher Education. It is accredited on the undergraduate and graduate levels by the Indiana Department of Public Instruction as a teacher education institution to meet certification requirements.

Certification. For the purposes of the Teacher-Education Program and supervised teaching, the regulations apply which are in force at the time the student is approved for admission to the Teacher-Education Program. All students who expect to teach and have not been admitted to the Teacher-Education Program should consult with the Pre-education Adviser of this department as early as possible to ascertain that certification requirements will be met.

The mere completion of the prescribed courses outlined in the Department of Education does not guarantee that the student will be recommended for certification or a teaching position.

A student holding a bachelor's degree and interested in qualifying for certification should consult with the chairperson of the department.

Major. Only students preparing to meet elementary education certification requirements may major in education.

Minor. Only students preparing to meet secondary education certification requirements may minor in education. University degree requirements call for a major outside of the field of education; normally this academic major will be in the teaching major field.

Elementary Education. Undergraduate students who wish to teach in an elementary school should complete the requirements for a Bachelor of Science in Education, a special curriculum in the College of Arts and Sciences. The completion of the requirements for this degree does not in itself qualify a student for a teacher's certificate or license in any given state.

A candidate for the degree of Bachelor of Science in Education must meet all the requirements of the University listed under Degrees and Degree Requirements for the College of Arts and Sciences. Course work must include the following as a minimum:

1. **Language Arts:** 16 semester hours. Must include nine credits in written and oral communication and a course in children's literature.
2. **Social Studies:** 12 semester hours. Must include History of Western Thought and Society, a course in U.S. history, a course in world civilization, and a course in Social Analysis selected from economics, geography, political science, or sociology.
3. **Conservation:** 3 semester hours. Must include one course in conservation.
4. **Science:** 8 semester hours. Must include a course in biology and one course in physical science selected from chemistry, physical geography, or physics.
5. **Mathematics:** 9 semester hours. Must include mathematics course work specifically designed for elementary teachers.
6. **Arts:** 6 semester hours. Must include one course in music appreciation or methods of teaching music and one in art appreciation or methods of teaching art.
7. **Other Subjects:** 8 semester hours. Must include general psychology, physical education, and a course in learning exceptionalities.
8. **Freshman Seminar:** 3 semester hours.
9. **General Education Electives:** Elect from the above to total 70 semester credits in these first eight categories.
10. **Religion:** 9 semester hours.
11. **University Course:** 3 semester hours. This course may be counted toward meeting the requirements in conservation, arts, or the general education electives.
12. **Education:** 36 semester hours. Must include an introductory course in education, psychological foundations of education, methods in elementary education, including six hours of reading, and 12 semester hours of student teaching.
13. **Electives:** In addition to the above requirements, the student must present sufficient electives to achieve the 124 semester credits required for graduation.

Endorsements for teaching special education, reading, and special subjects may be completed through special programs with requirements in addition to the above. A program leading to certification to teach at the junior high/middle school level may also be added. Specific requirements should be obtained from the Department of Education.

Freshman students will be advised by the Pre-education Adviser. A recommended course program is:

First Semester	Cr.	Second Semester	Cr.
English 5 or Freshman Seminar 5	3	English 5 or Freshman Seminar 5	3
History 5	3	History 20 or 21	3
Theology 5	3	Natural Science	4
Social Analysis (Optional)	0-3	Speech 45 or Education 62	3
Natural Science	4	Psychology 51	3
Physical Education 10	1	Physical Education 10	1
	14-17		17

Foreign language may be started in the freshman year for those who wish to concentrate in this area.

Sophomore students will be advised by the Pre-education Adviser. They should complete Foundations of Education during this year. Application for admission to the Teacher-Education Program should be made during the second semester of the sophomore year.

Junior students who are admitted to the Teacher-Education Program will be advised by the Coordinator of Elementary Education. Application for admission to supervised teaching must be filed by March 1.

Secondary Education.

Advising. Prior to admission to the Teacher-Education Program, secondary teacher candidates are asked to consult with the Pre-education Adviser of the Department of Education concerning programs leading to recommendation for teacher certification. Once formally admitted to the Teacher-Education Program, the student should consult periodically with the Coordinator of Secondary Education.

Requirements. Undergraduate students preparing to teach in the secondary schools should complete requirements for appropriate degree in their majors.

General Education certification requirements for all secondary teacher candidates, regardless of the degree sought, are given below:

Students must ascertain that they are meeting these General Education requirements as well as the University degree requirements.

I. Humanities—22 semester credits

Written and oral communication	9 credits
Literary Studies or the equivalent	4 credits
Foreign Language or Fine Arts	6 credits
Religion	3-9 credits

II. Life and Physical Sciences—8 semester credits

The 8 credits are to be selected from at least two of the following areas: biology, chemistry, mathematics, physical geography, and physics.

III. Social and Behavioral Sciences—9 semester credits

The 9 credits are to be selected from at least three of the following areas: economics, geography, history, political science, and sociology. (Since some states require all teachers to have a course in United States history, it is recommended that prospective teachers take at least one such course.)

IV. A course in general psychology3-4 credits

Professional Education requirements include:

1. Foundations of Education (Education 62)—3 credits.
(Preferably taken in the sophomore year)
2. Formal application and admission to the Teacher-Education Program in the first month of the second semester of the sophomore year (see below).
3. Orientation to Secondary Teaching (Education 105)—3 credits. (Preferably taken in the junior year.)
4. Formal application and admission to the Professional Semester before March 1 of the year prior to the academic year in which the Professional Semester is to be taken.

5. Completion of the Professional Semester. Courses included in the Professional Semester are:

Ed 156 Psychological Foundations of Secondary Education	4 credits
Ed 155 Principles and General Methods of Teaching the Academic Subject Areas	4-5 credits
Ed 191 Special Methods	2 credits
Ed 157 Supervised Teaching in the Secondary-School Subjects	8 credits

Teaching Major and Teaching Minor Requirements:

1. A teaching major, or all-grade major, is required of all secondary teacher candidates. A teaching minor or a junior high/middle school certificate is highly recommended. (Students are strongly urged to take or audit the Special Methods course in a teaching minor or a second teaching major.)

Credits earned by passing examinations and noted on transcripts may be used to meet certification requirements.

2. Specific requirements for teaching majors and minors may be obtained from the Pre-education Adviser, the Coordinator of Secondary Education, or the major adviser.

Admission to the Teacher-Education Program. To be admitted to this program, a student must submit a written application to the Department of Education. This application should be made in the first month of the second semester of the sophomore year. Applications are accepted only in January and September.

Action on each application (acceptance, conditional acceptance, or denial) will be taken by the Department of Education and will be based on the following criteria:

(1) grade-point average—normally an applicant must have established a 2.25 g.p.a. in all course work taken at Valparaiso University (a minimum of 12 semester credit hours must be used in establishing this average), and must have established a 2.00 g.p.a. in all course work taken in the Department of Education. Post-baccalaureate students must establish a 2.75 g.p.a. in all course work (12 hours minimum) taken at Valparaiso University subsequent to earning the bachelor's degree.

(2) communication skills—an applicant must have obtained a grade point average of 2.00 or better in required composition courses and a grade of C in the required speech course at Valparaiso University. (If deficiencies in written or oral communication are noted, remediation steps must be taken.)

(3) health—an applicant shall be free of serious mental or physical health problems that might impair future teaching effectiveness.

(4) character—an applicant must have shown the social and emotional maturity, moral character, responsibility, and dependability necessary for success in the teaching profession.

(5) speech and hearing test—an applicant must complete a speech and hearing screening examination.

(6) faculty recommendations—positive recommendations from two faculty members must be obtained by each applicant. One of these must be obtained

from the Foundations of Education instructor. Elementary education applicants will ordinarily obtain the second recommendation from the sponsor of their advisory group. Secondary education applicants must obtain the second recommendation from the major adviser.

When applicants are noted as questionable on any of these criteria, they may be asked to meet with a subcommittee of the Teacher Education Committee before final action is taken.

Professional Semester. This semester is required of all candidates who wish to be recommended for an initial teaching certificate. This semester includes the methods, principles, and student teaching courses required to meet standards for certification. During this semester the student should enroll only in courses approved for the Professional Semester.

Admission to the Professional Semester. Preliminary application for admission to the professional semester (including Supervised Teaching) must be filed and completed in person with the Coordinator of Elementary Education or the Coordinator of Secondary Education by March 1 of the Spring Semester prior to the academic year in which the student teaching is to be done. To be eligible for supervised teaching, the student:

- (1) must have been admitted officially to the Teacher-Education Program.
- (2) must have maintained a satisfactory grade-point average since his/her admission to the Teaching-Education Program and established a 2.00 g.p.a. in all teaching fields.
- (3) the applicant must continue to demonstrate in class a facility in oral and written communication. The applicant must have obtained a grade of C or better in English 75 or equivalent.
- (4) must have completed at least 12 credit hours at Valparaiso University of which 3 credit hours must be in education.
- (5) must have senior standing and be within two semesters and one summer of graduation.
- (6) must have shown the social and emotional maturity, moral character, the responsibility, and the dependability necessary for success in the teaching profession.
- (7) Secondary student teaching candidates must have completed General Psychology (Psychology 51 or 52), earned a 2.00 or higher average in all education courses completed, and received written recommendation from the major adviser to take the Professional Semester. If a teaching minor is to be obtained, written recommendation from the chairperson of the department of the minor must be received. (Students are strongly urged to take or audit the Special Methods course in the teaching minor area.)
- (8) Elementary student teaching candidates must have earned at least a 2.00 grade-point average in all course work in Education.

Placement of Student Teachers. The placement and the direction of supervised teaching experiences are the responsibilities of the Coordinator of School Field Experience. Approved elementary and secondary student teachers will be assigned to selected schools in Northwest Indiana.

Placement. The Teacher Placement Office gives assistance to beginning and experienced teacher candidates who have completed requirements for

certification. All candidates must file their credentials with this office prior to graduation.

Students who complete their undergraduate training at Valparaiso University are entitled to use of the Teacher Placement services at no cost to the student until the end of the Teacher Placement year which comes after graduation or the completion of the professional semester, whichever comes last. (The teacher placement year is from October 1 to September 30.)

A ten dollar fee will be charged each teacher candidate who wishes to use the Teacher Placement service after the expiration of free service time. This will reinstate the student till the end of the then current teacher placement year. This fee will be waived for those students completing Valparaiso University's teacher training program who have not received an offer of an initial teaching position since completion of their program.

Undergraduate and Graduate Credit.

Note: No undergraduate student will be admitted to any course beyond Education 105 unless admitted to the Teacher Education Program or permitted to do so by the Department Chairperson.

62. Foundations of Education. Cr. 3. A study of the historical, sociological, and philosophical foundations of American education. Current issues and trends in education. Readings and activities to increase cultural and ethnic awareness. Field activities.

96. Educational Psychology. Cr. 3. A course relating the principles and theories of psychology and the results of research to teaching and learning. Prerequisite: Psychology 51 or 52. (Not open to majors or minors in education.)

105. Orientation to Secondary Teaching. 2+3, Cr. 3. A course designed to provide the prospective secondary or middle school teacher with the basic rationale and supportive field experiences for an informed decision about teaching as a career. Academic coursework includes topics in secondary school organization, curriculum, statistics, and school law in preparation for taking the professional semester. The field experiences include a minimum of forty hours of practical involvement in activities in a secondary school. Prerequisites: Education 62, application for admission to Teacher Education, and advanced course selection. Fee, \$35.00.

115. Principles and Methods of Elementary Education. Cr. 9. Study of the organization of instruction, classroom management, legal rights and responsibilities of teachers, measurement and evaluation, and skills of teaching in the elementary school. Includes principles, content, curriculum, methods, and techniques involved in teaching mathematics, social science, and science in the elementary school. Involves directed classroom observation, teaching in a micro setting, operation and use of audio-visual equipment, materials construction, and activities designed to increase ethnic awareness.

116. Psychological Foundations of Elementary Education. Cr. 4. A study based in psychological research and theory to aid teachers in guiding the learning, development, and evaluation of children. Includes physical, mental and emotional development of the child through adolescence and motivation, retention, and transfer of learning. Involves directed classroom observation. Prerequisite: Psychology 51.

117. Introduction to Reading in the Elementary School. Cr. 4. An introductory course in which lectures, demonstrations and discussions place emphasis on the reading process, reading skills, and teaching techniques. Practice in diagnosis and teaching reading.

155. Principles and General Methods of Teaching the Academic Subject Areas. Cr. 4-5. A study of the principles, methods, techniques, and materials involved in teaching in the secondary and middle schools and the development of human relation skills. The fifth credit provides opportunity for all-grade majors (Art, Music, Physical Education) to study general methods, curriculum and organization of the elementary school. This course is restricted to students enrolled in the Professional Semester in Secondary Education.

156. Psychological Foundations of Secondary Education. Cr. 4. A course based on psychological research and theory to aid teachers in guiding the learning and development of children and adolescents. This course is restricted to students enrolled in the Professional Semester in Secondary Education. Prerequisite: Psychology 51 or 52.

157. Supervised Teaching in the Secondary-School Subjects. Cr. 8. Each student will be assigned to a middle or secondary school for laboratory experiences, which will include at least 9 weeks of full-time classroom observation, classroom teaching, and related activities. Prerequisites: senior standing and concurrent enrollment in the Professional Semester. See special paragraphs on the Professional Semester in the general statement above for conditions of eligibility. Students enrolled in this course may not carry a load of more than 19 credit hours. S/U grade. Fee, \$90.00.

163. Methods of Teaching Language Arts in the Elementary School. Cr. 2. A study of the principles, content, curriculum, methods, and techniques involved in teaching the language arts in the elementary school.

164. Methods of Teaching Reading in the Elementary School. Cr. 2. A study of the organization and techniques of teaching reading in the elementary school.

167. Supervised Teaching in the Elementary Grades. Cr. 12. This course gives the student opportunities for observation, actual classroom teaching, and participation in related activities in elementary schools under the directions of the supervising teacher and the University supervisor. Students are expected to give full time to this course for a minimum of nine weeks of the semester. Prerequisite: senior standing. See special paragraph on Supervised Teaching under the general statement above for conditions of eligibility. Students enrolled in this course may not carry a maximum load of more than 18 credit hours. S/U grade. Fee, \$90.00.

174 (274). Reading in the Content Areas. Cr. 3. Lectures and demonstrations cover the reading process as it is involved in the various content areas of junior high, middle school, and secondary school curricula. Specific techniques for developing competencies in diagnosis of reading difficulties and in instruction of reading in the content areas are given emphasis.

176 (276). Foundations of Reading. Cr. 3. A course of lectures and demonstrations which cover the reading process, appraisal of reading needs, directed reading activities and reading skill development.

177 (277). The Elementary School Curriculum. Cr. 3. A study of the composition of today's elementary curriculum, the factors which affect its development, the principles governing curriculum organization, and current curricular patterns.

178 (278). Kindergarten Education. Cr. 3. This course deals with the curriculum, the teaching techniques and the materials used in the nursery school and kindergarten. Special emphasis will be given to the education needs of the pre-school child.

180 (280). Introduction to Educational Media. 2+2, Cr. 3. An introduction into the ways of effective selection and utilization of media, both material and equipment. The course includes laboratory experience in the production and equipment operation in different media.

181 (281). Educational Guidance and Counseling. Cr. 3. A course dealing with the nature, functions, and organization of student personnel programs in elementary and secondary schools with counseling and guidance services the central feature. Prerequisite (for undergraduates only): Education 182 or the equivalent.

182 (282). Educational Measurement. Cr. 3. A course dealing with theory of measurement, interpretation of measurement data, and testing in relation to pupil achievement and guidance.

184 (284). Reading Disabilities. Cr. 3. Lectures and demonstrations on the general nature of identification, diagnosis and classification of individuals with reading problems at all ages and levels of instruction. Prerequisite: six hours of coursework in reading.

185 (285). The Junior High/Middle School. Cr. 3. A study of the development, organization, and curriculum of junior high and middle schools with emphasis on the unique societal and educational roles played by these institutions.

186 (286). Junior High/Middle School Teaching: Principles and Methods. Cr. 3. A study of the principles, methods and materials involved in teaching in junior high and middle schools. Individualization of instruction and interdisciplinary learning are emphasized.

187 (287). Practicum in Junior High/Middle School. Cr. 3. Each student will be assigned to a minimum of 80 hours of supervised field experiences in a junior high or middle school. The experiences will include planning, intramural-athletic, and home room activities such as peer counseling, individual guidance, values clarification, exploratory courses, and recreational events, working with students on individualized study projects and study skills. Prerequisites: Education 185 (285) and 186 (286) or concurrent enrollment. Fee, \$35.00.

189 (289). Practicum in Corrective Reading. Cr. 3. A laboratory experience which provides practice with primary, elementary, middle, and junior high school children whose reading disabilities are mild to moderate. Training in evaluating reading performance, planning appropriate programs, and implementing instructional strategies. Prerequisite: Education 184 or equivalent.

191. Special Methods in the Academic Courses in Secondary Education. Cr. 2. This course is administered by the Department of Education. It is given in the various departments of the College of Arts and Sciences under the following titles:

The Teaching of English	The Teaching of Physical Education
The Teaching of Foreign Languages	The Teaching of Social Studies
The Teaching of Journalism	The Teaching of Speech and Drama
The Teaching of Mathematics	The Teaching of Visual Arts
The Teaching of Music	The Teaching of Vocational Home Economics
The Teaching of Natural Sciences	

Prerequisites: Education 62, Education 105, and admission to the Professional Semester.

195. Independent Study In Education. Cr. 1-3. Independent work to be done in a specific area of education as agreed upon by the student and faculty adviser. Proposals must be approved by the chairperson of the department.

199 (299). Current Problems in Education. Cr. 1-3. An intensive study of an area of education. Subtitles, amount of credit, and content will depend on instructor's choice and student interest.

Courses in Special Education.

140 (240). Learning Exceptionalities. Cr. 3. A course designed to introduce the student to the needs of exceptional children and the techniques of educating them. Required of all Elementary Education students.

143. Introduction To Learning Disabilities. Cr. 3. A course designed to give the student fundamentals in the theoretical orientations of learning disabilities with emphasis on the characteristics and educational needs of the learning-disabled child. Prerequisite: admission to Teacher Education Program for Special Education.

144. The Diagnosis Of Learning Disabilities. Cr. 3. This course deals with the development of competencies in the diagnosis of specific learning disabilities. The emphasis is on theoretical models of diagnosis, screening, and testing instruments as well as interpretation of education assessment data. Prerequisite: Special Education 143.

145. The Remediation Of Learning Disabilities. Cr. 3. The emphasis of this course is on the development of diagnostic prescriptive models, remediation strategies and teacher-made remediation materials in order to develop competencies in the various approaches to remediation of specific learning disabilities. Prerequisite: Special Education 144.

148. Supervised Teaching in Elementary and Special Classrooms (Learning Disabilities). Cr. 16. This course combines into one semester the experience of observation, actual classroom teaching, and participation in related activities in both elementary school settings and special education (learning disabilities) classrooms. Under the direction of the supervising teachers and university supervisor, the students will be in the elementary classroom full days for 7 weeks followed by a 7-week experience in the special education (learning disabilities) classroom. Prerequisites: senior standing, Special Education 145, and admission to the Professional Semester. S/U Grade. Fee, \$120.00.

195. Independent Study in Special Education. Cr. 1-3. Independent work to be done in a specific area of special education as agreed upon by the student and faculty adviser. Proposals must be approved prior to registration by the chairperson of the department.

199 (299). Current Problems in Special Education. Cr. 1-3. An intensive study of an area of special education. Subtitles, amount of credit, and content will depend on instructor's choice and student interest.

ENGLISH

Professors

John Feaster
Ph.D., Purdue University
Paul F. Phipps
Ph.D., The Johns Hopkins University
Herbert J. Risley
Ph.D., Indiana University
Nola J. Wegman
Ph.D., Northwestern University

Associate Professors

Rex Cunningham
M.F.A., State University of Iowa
Thomas G. Hall
Ph.D., Washington State University
Henry W. Prah
M.A., University of Michigan
Ronald J. Sommer
Ph.D., Indiana University
Arvid F. Sponberg (chairman)
Ph.D., University of Michigan

Assistant Professors

Gail M. Eifrig
M.A., Bryn Mawr College
Renu Juneja
Ph.D., Pennsylvania State University
Elsbeth A. Loeppert
M.A., Northwestern University
Richard C. Maxwell
Ph.D., The University of Chicago
Kathleen R. Mullen
Ph.D., University of Texas
Edward M. Uehling
Ph.D., Pennsylvania State University

Instructors

Joyce E. Hicks
M.A., Michigan State University
Jane M. Lump
M.A., Purdue University

Distinguished Service

Professor Emeritus

Walter G. Friedrich

Professor Emeritus

Allen E. Tuttle

The Department of English, one of the largest departments in the College of Arts and Sciences, offers a wide variety of courses for both English majors and other students. Courses offered by the department help students use the English language effectively and sensitively and help them develop their capacity to enjoy and understand imaginative literature. Many non-English majors enroll in upper division courses, and, as a consequence, students can expect that any given class will display a broad spectrum of interests and backgrounds. Relatively small class size allows students to develop a close relationship with professors and allows them to develop their analytical and expressive skills through writing and discussion. In addition to preparing a student for graduate work, an English major also provides excellent training for numerous careers and professions. Many schools of medicine, law, and theology report that an English major provides a highly desirable background for acceptance into their programs. Business and government annually employ English majors for positions in personnel, sales and marketing, public relations, systems analysis, and advertising, as well as editing and writing. The ability to read and understand complex material, to write and speak precisely, to think clearly and thoroughly, remains in high demand in all sections of our society.

Major. A minimum of 27 credits in courses numbered 100 or above. Must include courses 100, 147, and 148. In addition, each student shall complete at least one semester in English 187: Seminar in English.

It should be noted that 27 hours constitutes a *minimum* academic major. We encourage students to proceed well beyond the minimum major to attain a balanced view of both British and American literature, including ample study of literature before 1800. No later than the first semester of the junior year, each student shall submit a proposed plan of study to the chairperson of the department.

Minor. A minimum of 15 credits in English in courses numbered 100 or above constitutes a minor. Courses must include 100 or 147 or 148.

Minor in Writing. Students electing a minor in Writing must complete a total of at least 15 hours from the courses listed below. Courses *must* include English 131, Advanced Composition.

- *English 57. Business Communication
- *English 58. Technical Communication
- English 115. Theories of Writing
- English 122. Creative Writing
- English 131. Advanced Composition
- English 141. History of the English Language
- English 142. Modern English Grammar
- English 143. Introduction to Linguistics

Approval of Schedules. All students taking a major or a minor in the department must have their schedules approved by the chairperson of the department at the beginning of each semester. Consult English Department Bulletin or Advanced Course Selection bulletin to determine when any course will be offered.

Undergraduate and Graduate Credit.

2. English for Foreign Students. 3+1, Cr. 3. A course in English grammar and basic composition skills open only to students whose native language is not English.

****5. Exposition and Argument.** Cr. 3. An intensive course in the writing of expository and argumentative prose with emphasis upon coherent organization, the logical progression of thought, and the effective use of language.

*****25. Literary Studies.** Cr. 4. Readings of poems, plays, and fictional works from various periods, with emphasis upon the understanding and enjoyment of literature gained through close critical analysis. Readings will include British, American, world, and minority writers. Additional experience in writing complements that of English 5. Prerequisite: English 2 or 5.

INTERMEDIATE COURSES: Prerequisites are English 2 or 5 and 25.

57. Business Communication. Cr. 3. A detailed study of business communication. Includes analysis and practice in a variety of messages used to communicate in business and industry—letters, oral reports, and informal reports. Emphasizes the fundamentals of appearance, style and language, tone and psychology of effective business communication.

58. Technical Communication. Cr. 3. This course will train engineering and science students to write and talk about their design and research problems in terms that will satisfy a specialist and also enable a non-specialist to understand what the problem is and how it was (or can be) solved. Students will prepare and present a series of short explanatory papers, some letters and oral presentations leading up to a final formal report and oral presentation.

65. Studies in Literature.**** Cr. 3. Special topics in British, American, European, or non-Western literature. Examples of topics which have been prepared are: (1) The Minority Voice in Contemporary American Literature; (2) Southern Letters: 1920 to the Present; and (3) The American Novel Since World War II.

*Students may count only *one* of these toward a minor in Writing.

**Credit for English 5 may be earned through the College Level Examination Program (CLEP) general examination in English or the subject area examination in English Composition.

***Credit for English 25 may be earned through the College Level Examination Program (CLEP) subject examination in Analysis and Interpretation of Literature.

****All courses designated by asterisk (*) may vary in content and in writers assigned, depending upon the instructor and year given. Such courses may be taken twice for credit, provided topic is new, or there is no significant overlapping in the reading lists.

75. Composition for Teachers. Cr. 2-3. A course designed for future teachers emphasizing the practical skills and art of writing and examining methods of teaching and evaluating writing.

ADVANCED COURSES: Prerequisites are English 2 or 5 and 25. Courses labeled 200 and above are open to qualified graduate students; undergraduates enroll in the dual-numbered courses on the "100" level.

100 (200). Methods of Literary Criticism and Research. Cr. 3. Designed to give students practical experience in the theories and methods of modern literary scholarship and criticism. The course aims to acquaint students with the presuppositions about literature which underlie critical writing and thus to provide standards for evaluating critical and scholarly works. It also provides intensive training in the analysis of literary texts. Required for English majors.

101. American Literature I. Cr. 3. A study of selected works of major American writers from the Colonial Period to the Civil War.

102. American Literature II. Cr. 3. A study of selected works of major American writers from the Civil War to the present day.

105. Masterpieces of World Literature. Cr. 3. A study of major works of the Occident and Orient from ancient times to the present day.

109 (209). Medieval Studies.* Cr. 3. A study of medieval lyrics, narratives, and romances, with lectures on medieval social and intellectual backgrounds. In alternate semesters, this course will deal solely with the work of Chaucer.

110 (210). Shakespeare. Cr. 3. Close readings of representative plays: histories, comedies, and tragedies.

115. Theories of Writing. Cr. 3. This course analyzes the various stages of the act of writing. Such topics as invention, arrangement, and style will be studied from historical, theoretical, and pedagogical points of view. The student will learn how strategies of rhetoric operate today by analyzing the writing of others, making short imitations, and writing one major paper which applies various theories to a rhetorical or stylistic problem.

120 (220). Renaissance and Seventeenth Century Studies.* Cr. 3. Readings in significant works of selected writers ranging from More to Milton, with attention to the intellectual, religious, and political backgrounds of the Renaissance and earlier seventeenth century.

122. Creative Writing. Cr. 3. A workshop in the various techniques of writing poetry and short fiction. English majors, as well as other students, may take this course on an S/U basis.

130 (230). Restoration and Eighteenth Century Studies.* Cr. 3. An intensive study of several major writers and dominant literary types in England from 1660 to 1780, with attention to the historical and cultural backgrounds of the period.

131. Advanced Composition. Cr. 3. Advanced study of the writing of various kinds of English prose, not including fiction. Considerable writing practice is given, the goal being to develop a lucid, effective style.

141 (241). History of the English Language. Cr. 3. An introduction to the development of modern English from Indo-European with emphasis upon structure and vocabulary.

142 (242). Modern English Grammar. Cr. 3. An introduction to such recent linguistic developments as structural grammar and transformational-generative grammar.

143 (243). Introduction to Linguistics. Cr. 3. A general introduction to the theory and methodology of linguistics. The course includes descriptive and historical linguistics, basic notions of grammatical theory, and exploration of some of the relations of linguistics to other branches of knowledge. The presentation of general principles will be supplemented by practical problems in linguistic analysis.

All courses designated by asterisk () may vary in content and in writers assigned, depending upon the instructor and year given. Such courses may be taken twice for credit, provided topic is new, or there is no significant overlapping in the reading lists.

147. British Literature in Its Historical and Critical Contexts I. Cr. 3. A study of selected works of significant and representative British writers in their historical/critical contexts up to the end of the Neo-classical Period. Attention will be given not only to the writers themselves and their literary milieu but to important extra-literary conditions that have influenced them.

148. British Literature in Its Historical and Critical Contexts II. Cr. 3. A continuation of 147 beginning with the Romantic Movement. Course 147 is not a prerequisite for Course 148.

151. The Romantic Movement. Cr. 3. A study of the poetry of Wordsworth, Coleridge, Byron, Shelley, Keats, and minor poets. Some of the prose of the period will be considered incidentally.

152. Victorian Literature. Cr. 3. Several major Victorian poets, novelists, and essayists are read in the light of background studies of Victorian values and mores. Among the writers that may be considered are: Carlyle, Ruskin, Tennyson, Browning, Arnold, the Brontës, Dickens, George Eliot, and Hardy.

156 (256). The Novel. Cr. 3. A study of representative English novels of the eighteenth and nineteenth centuries, with discussion of the social background.

160 (260). Modern Drama. Cr. 3. A study of plays typical of the various phases of the development of British and American drama after 1870, with some attention to related Continental drama.

165. Studies in American Literature.* Cr. 3. A study of a significant movement in American literature, such as Transcendentalism, Romanticism, Naturalism, and Realism, or a group of writers related regionally, ethnically, or in some other special way.

170 (270). Modern Fiction. Cr. 3. Readings of representative works of the most important British and American novelists of the twentieth century, with emphasis on various theories of fiction dominant during the period.

175 (275). Modern Poetry. Cr. 3. Readings in selected modern poets and their forerunners, especially the French Symbolists. The British and American poets included may range from Yeats and Eliot to Auden, Robert Lowell, and some other contemporary figures.

178. Literature for Children. Cr. 3. A survey, by types, of distinguished literature for children, with emphasis on developing analytical and evaluative techniques. Introduction to bibliographical aids, review media, and research required of elementary education majors.

179 (279). Literature for Adolescents. Cr. 3. A survey, by types, of distinguished literature suitable for students in the secondary schools. Emphasis on the reading of selected books representing the wide range of literature for adolescents, and developing of analytical and evaluative techniques. Introduction to bibliographical aids, review media, and current research in the field.

187. Seminar in English.* Cr. 3. Designed chiefly for juniors and seniors interested in active participation, the seminar encourages independent thought and research, and relies upon free discussion rather than lectures. Some recent topics: The Aesthetic Movement from Poe to Yeats and Mann; Satire; Contemporary British Novelists; Anglo-Irish literature. Enrollment limited to 15 students. Required for English majors.

191. The Teaching of English. Cr. 2. (See Education 191.) A study of the methods of teaching English in secondary school. Prerequisite: admission to Supervised Teaching. This course may not be counted toward a major or minor in English.

194. Independent Study in English. Cr. 3. Designed to provide advanced students an opportunity to do serious research on a topic which is not covered in any regularly scheduled course offered by the English Department. In advance of the semester in which the student plans to undertake his project, he must arrange for a tutor to direct that project and secure approval for it from the English Department Committee on Honors and Independent Study.

195 (295). Topics in Literature.* Cr. 2 (half course) -3. An open-topic course, which may concern a single writer or a group of writers; a literary type or theme; a contemporary art form (e.g., development of the cinema); or an aspect of modern popular culture (e.g., science fiction and fantasy).

197. Honors Work in English. Cr. 3. See this catalog, p. 46, for current regulations regarding honors work. For other types of independent reading and research, consult with the chairperson of the Department of English.

All courses designated by asterisk () may vary in content and in writers assigned, depending upon the instructor and year given. Such courses may be taken twice for credit, provided topic is new, or there is no significant overlapping in the reading lists.

FOREIGN LANGUAGES

Professors

Henning Falkenstein
Ph.D., Philipps Universitaet (Marburg)
Johannes Helms
Ph.D., University of Michigan
Thora M. Moulton
Ph.D., Eberhard-Karls Universitaet
(Tübingen)
Howard N. Peters
Ph.D., University of Colorado

Associate Professor

Judith G. Peters
Ph.D., University of Colorado

Assistant Professors

Simone-Francoise Baepler
Lic. es L., La Sorbonne
Michael M. Kumpf (chairman)
Ph.D., Ohio State University
Mirtha Toledo-Smith
M.S., Indiana State University

Instructors

Eileen E. Coates
B.A., Valparaiso University
Kathy J. Koberstein
M.A., Middlebury College

Professors Emeriti

Hazel T. Guillaumant
Gustav Must
Carol O. Petersen
Edgar C. Reinke

Associate Professor Emerita

Mary M. Crumpacker

The Department has the following objectives:

1. To teach the skills of reading, writing, understanding, and speaking. The learning of grammar is not to be considered an end in itself, but should be incorporated into the improvement of the above skills. The students' progress should be evaluated according to their acquisition of these skills.
2. To enhance the students' awareness of language, its structure and uses. The study of a foreign language should increase the students' knowledge of their own language and their sensitivity to its effective use.
3. To respond to the fact that communication in a foreign language is not achieved, in its best sense, with language skills alone, but with an understanding of the beliefs, traditions, values, and way of life of those who use the language. The inclusion of a strong cultural component in these courses is vital to the learning of a language.

In the upper division courses, numbered above 100, the objectives are to continue the work begun in the lower division courses, by becoming proficient in the speaking and writing of the languages offered, to study their literatures and civilizations, and to prepare students for the teaching of foreign languages and for graduate studies.

The Department also contributes to the program in International Economics and Cultural Affairs. See page 96 for details.

Special Credit. A student can receive four (4) hours of credit for level 20, either by passing a special proficiency examination or by completing level 30 in that language.

A student can receive eight (8) hours of credit for levels 20 and 30, either by passing a special proficiency examination or by completing an advanced level course in that language.

The examination will be given by each section of the Department during the first week of each semester.

A student who has completed a second year language course in high school will not be granted credit for level 10 in that language.

Placement. For students who wish to continue with the same language they studied in high school, the following placement is suggested:

After having completed two years of study in high school, register for course 20.

After having completed three years, register for course 20 or 30.

After having completed four or more years, register for 30 or an advanced course in that language.

Students who do not wish to continue with the same language they studied in high school must register for course 10 of another language.

Students who are in doubt about self placement are encouraged to take a placement examination, which is given during orientation week.

Special Exception to Foreign Language Requirement. Foreign students, whose native language is not English and who are studying on a non-immigrant visa, are exempt from the Foreign Language requirement provided they have fulfilled the general education requirements in English. Such students are also eligible to earn up to eight (8) credits by taking the Foreign Language Proficiency Examination approved by the Department of Foreign Languages.

Concentration Areas. It is recommended that all students study at least one other language and that they take a variety of electives in Art, Economics, English, Geography, History, Mathematics and/or Statistics, Music, Philosophy, Political Science, Psychology, Sociology, or Speech and Drama.

Those wishing to teach must submit a course of study in writing to the chairperson of the department.

Approval of Schedules. All students taking a major or a minor in the department and all students planning to teach must have their schedules approved by the chairperson of the department at the beginning of each semester.

FRENCH

Major. A minimum of 20 credits in French beyond French 30.

Minor. A minimum of 10 credits beyond French 30 constitutes a minor in French.

Undergraduate and Graduate Credit.

10. First Semester French. Cr. 4. A course designed to give the student the essentials of French. Credit may not be counted for graduation by a student who has completed a second year French course in high school.

20. Second Semester French. Cr. 4. A continuation of French 10. Prerequisite: French 10 or equivalent.

30. Intermediate French. Cr. 4. A course to emphasize the acquisition of verbal skills; includes reading of a modern French literary text, review of grammar, vocabulary building and an approach to French culture. Prerequisite: French 20 or equivalent.

50. Topics in French Literature. Cr. 3. Study of a selected form or aspect of French literature in English translation. No knowledge of French required. May not be counted toward a major or minor in French.

Note: French 30 is a prerequisite for all of the following courses:

111. French Composition and Conversation. Cr. 4. Practice in speaking, understanding, and writing everyday French. Use of practical vocabulary and common idioms.

112. Advanced French Composition and Conversation. Cr. 4. An intensive course in speaking, listening and writing, from the colloquial to the scholarly. Prerequisite: French 111 or 120.

114. Contemporary French Language and Communication. Cr. 4. French newspapers, magazines, radio, television, and films are used as a basis for building more advanced language skills and to familiarize the student with modern-day France. Prerequisite: French 111 or 120.

115. French Phonetics. Cr. 3. A study of the principles of French phonetics with special emphasis upon the difficulties encountered by American students. Much practical training in the laboratory.

116. Professional French. Cr. 2-3. A study of the French language as it is used in the international business world, including writing of business letters and general commercial terminology. Prerequisite: French 111 or 120.

117. Advanced French Translation. Cr. 2-3. Instruction in the techniques of translation from and into French of commercial, practical, technical, official, and literary texts. Prerequisite: French 111 or 120.

120. Masterpieces through the Centuries. Cr. 3-4. Rapid reading of a few representative works with supplementary lectures and extracts designed to give a broad survey of French literature.

130. French Civilization. Cr. 4. Civilization of France from earliest times to the present. Prerequisite: French 111 or 120.

Note: All literature seminars listed below may be repeated provided there is no duplication of material. Prerequisite: French 111 or 120 or consent of the chairperson of the department.

160 (260). Seminar in French Renaissance Literature. Cr. 3-4. (Graduate credit 2-3). Study of individual genres, authors, movements, or aspects of French literature of the Renaissance. May be repeated.

161 (261). Seminar in French Classical Literature. Cr. 3-4 (Graduate credit 2-3). Study of selected topics in the literature of the seventeenth and early eighteenth centuries. May be repeated.

162 (262). Seminar in French Literature of the Enlightenment. Cr. 3-4 (Graduate credit 2-3). Selected areas of study in the writings of pre-revolutionary France. May be repeated.

163 (263). Seminar in French Literature of the Nineteenth Century. Cr. 3-4 (Graduate credit 2-3). Study of such topics as Romanticism, Realism and Naturalism in the French novel, theatre, or poetry. May be repeated.

164 (264). Seminar in Contemporary French Literature. Cr. 3-4 (Graduate credit 2-3). Study of literary trend-setters in the novel, drama, or poetry of France before and after World War II. May be repeated.

190. Directed Reading in French. Cr. 1-4. Intended for students capable of doing independent study in French language, civilization, and literature. Prerequisite: consent of the chairperson of the department.

191. The Teaching of Foreign Languages. Cr. 2. (See Education 191). A study of the methods of teaching foreign languages in secondary schools. May not be counted toward a major or a minor in the Department of Foreign Languages. (Given upon sufficient demand.) Prerequisite: admission to Supervised Teaching.

GERMAN

Major. A minimum of 20 credits in German beyond German 30. Majors are required to take courses both in language and civilization (Courses 110-117, 130) and in literature (remaining courses).

Minor. A minimum of 10 credits beyond German 30 constitutes a minor in German.

The Walther M. Miller Memorial Prize. See page 243 for details.

Undergraduate and Graduate Credit.

10. First Semester German. Cr. 4. A course designed to give the student the essentials of German. Credit may not be counted for graduation by a student who has completed a second year German course in high school.

20. Second Semester German. Cr. 4. A continuation of German 10. Prerequisite: German 10 or equivalent.

30. Intermediate German. Cr. 4. Reading, writing, and discussion in German on the intermediate level; review of German grammar. Upon sufficient demand a special reading section will be offered. Prerequisite: German 20 or equivalent.

50. Topics in German Literature. Cr. 3. Study of a selected form or aspect of German literature in English translation. No knowledge of German required. May not be counted toward a major or minor in German.

110. Conversational German I. Cr. 2. Practice in speaking everyday German. This course is also intended for non-majors who wish to increase their conversational fluency. Prerequisite: German 30. May be repeated for credit at Reutlingen Study Center only.

111. Conversational German II. Cr. 2. A continuation of German 110 with work of increased difficulty. Prerequisite: German 110. May be repeated for credit at Reutlingen Study Center only.

112. Written German. Cr. 2. Practice in writing everyday German. This course is also intended for non-majors who wish to increase their writing ability. Prerequisite: German 30.

113. Advanced German. Cr. 2. A course intended primarily for students who plan to teach German, attend German universities, or to do graduate work in German. Writing, stylistics, and presentation of academic papers. Prerequisite: German 110 or 112.

114. Contemporary German Language in the Mass Media. Cr. 4. The contemporary German language as used in radio broadcasts, newspapers, magazines, and other sources from German-speaking countries. Prerequisite: German 111 or 112.

115. History of the German Language. Cr. 2-4. A survey of the development and phonetics of the German language. Prerequisite: German 110, 112, or 120.

116. Professional German. Cr. 2. A study of the German language primarily for participants in the Program in International Economics and Cultural Affairs. The course will be adjusted to the career needs of the individual class. Prerequisite: German 110 or 112.

117. Advanced German Translation. Cr. 2. Exercises in the translation of practical and literary texts from and into German. Prerequisite: German 112.

120. Introduction to German Literature. Cr. 4. A study of the basic forms of German literature. Reading and discussion of at least one tragedy, one comedy, one *Novelle*, and selections from various types of poetry. Prerequisite: German 30.

125. The German Lyric. Cr. 2. A survey of German lyric verse from its beginning to modern times. Class reading, lectures, independent reading and phonograph recordings. Prerequisite: German 110, 112, or 120.

126. The German *Novelle* and Short Story. Cr. 2. Systematic and historical study of the *Novelle* and the short story. Class reading and discussion of representative *Novellen* and short stories; lectures, independent reading, and class reports. Prerequisite: German 110, 112, or 120.

128. The German Drama. Cr. 2. Development of the German drama from its beginning to modern times. Reading of representative plays of each period, lectures, and discussion. Prerequisite: German 110, 112, or 120.

130 (230). German Civilization. Cr. 3-4. (Graduate credit 3.) An historical survey of the German cultural heritage in the fields of history, philosophy, religion, sociology, and the fine arts. Prerequisite: German 110, 112, or 120 or consent of the chairperson of the department.

155. Goethe and Schiller. Cr. 4. Class reading and discussion, lectures, independent reading, and class reports. Prerequisite: German 110, 112, or 120.

160 (260). Studies in the History of German Literature. Cr. 2-4. (Graduate credit 2-3). Selected periods from the History of German Literature. Course may be repeated provided there is no duplication of material. Prerequisite: German 110, 112, or 120.

190. Directed Reading in German. Cr. 1-4. Intended for students capable of doing independent study in German language, civilization, and literature. Research paper required. Prerequisite: consent of the chairperson of the department.

191. The Teaching of Foreign Languages. Cr. 2. (See French 191 and Education 191.) Prerequisite: admission to Supervised Teaching.

THE CLASSICS

Major. A minimum of 16 credits in Greek and 12 credits in Latin beyond Latin 30.

GREEK

Major. A minimum of 24 credits in Greek.

Minor. A minimum of 16 credits in Greek constitutes a minor.

The Reverend and Mrs. Arthur L. Reinke Memorial Scholarship. See page 237 for details.

The Ruth H. Gunther Scholarship. See page 231 for details.

Delta Upsilon Chapter of The Eta Sigma Phi Scholarship. See page 230 for details.

Undergraduate Credit.

10. First Semester Greek. Cr. 4. A course designed to give the student the essentials of New Testament Greek.

20. Second Semester Greek. Cr. 4. A continuation of Greek 10, followed by reading the Gospel of Mark. Prerequisite: Greek 10 or equivalent.

30. Intermediate Greek. Cr. 4. Selected readings from the New Testament, with a study of its philology and syntax, including an introduction to manuscript traditions and textual criticism. Prerequisite: Greek 20 or equivalent.

50. Greek Classics in Translation. Cr. 3. Greek literature from Homer through Aristotle. Lectures and readings. No knowledge of Greek required. May not be counted toward a major or minor in Greek.

51. Classical Mythology. Cr. 3. Survey of Greek and Roman myths and their influence on modern literature and art. No knowledge of Greek or Latin required. May not be counted toward a major or minor in Greek or Latin.

Note: Unless otherwise stated, the prerequisite for each of the following courses is Greek 30 or consent of the chairperson of the department.

112. Greek Historiography: Selected Readings from Greek Historians. Cr. 2-4. A study of contrasting philosophies of history.

113. Plato. Cr. 2-4. Reading of representative dialogues. Study of Plato as philosopher and of the personality of Socrates.

114. Homer. Cr. 2-4. Selections from the *Iliad* and *Odyssey*. Study of the literary qualities of the early epic and of life in the Heroic Age.

115. Greek Drama. Cr. 2-4. Selected plays of Aeschylus, Sophocles, and Euripides, with supplementary lectures on the Greek theatre.

116. Hellenistic Greek. Cr. 2-4. Readings from the Greek Septuagint and subsequent Hellenistic literature.

125. Greek Composition. Cr. 1-2. Greek writing of moderate difficulty, including translation into Greek of passages of connected English prose; review of grammar and syntax.

190. Directed Reading in Greek. Cr. 1-4. Intended for students capable of doing independent study in Greek language and literature. Scholarly paper required. Prerequisite: consent of the chairperson of the department.

HEBREW

Minor. A minimum of 16 credits in Hebrew constitutes a minor.

Undergraduate Credit.

10. First Semester Hebrew. Cr. 4. Elements of Hebrew grammar stressing oral and reading ability. Credit may not be counted for graduation by a student with more than one year of high school credit in Hebrew.

20. Second Semester Hebrew. Cr. 4. A continuation of Hebrew 10, with reading of simpler prose sections of the Old Testament. Prerequisite: Hebrew 10 or equivalent.

30. Intermediate Hebrew. Cr. 4. Selected reading of Old Testament prose and poetry, with attention to increased vocabulary and linguistic structure. Prerequisite: Hebrew 20 or equivalent.

120. Selected Readings in Hebraic Literature. Cr. 2-4. Readings for advanced students from the Old Testament and rabbinic literature. Prerequisite: Hebrew 30 or consent of the chairperson of the department.

LATIN

Major. A minimum of 20 credits in Latin beyond Latin 30.

Minor. A minimum of 10 credits beyond Latin 30 constitutes a minor in Latin.

The Reverend and Mrs. Augustus Reinke Memorial Scholarship. See page 237 for details.

The Ruth H. Gunther Scholarship. See page 231 for details.

Delta Upsilon Chapter of The Eta Sigma Phi Scholarship. See page 230 for details.

Undergraduate and Graduate Credit.

10. First Semester Latin. Cr. 4. A course designed to give the student the essentials of Latin. Also slides and filmstrips with tapes surveying Roman civilization to be viewed in the Multi-Media Center. Credit may not be counted for graduation by a student who has completed a second year Latin course in high school.

20. Second Semester Latin. Cr. 4. A continuation of Latin 10, followed by easy selections from Latin prose. Prerequisite: Latin 10 or equivalent.

30. Intermediate Latin. Cr. 4. Introduction to Latin epic poetry; readings from the *Aeneid* of Vergil and the *Metamorphoses* of Ovid. Prerequisite: Latin 20 or equivalent.

50. Latin Classics in Translation. Cr. 3. Latin literature from its earliest Republican beginnings through the Silver Age of the Roman Empire. Lectures and readings. No knowledge of Latin required. May not be counted toward a major or minor in Latin.

51. Classical Derivatives. Cr. 3. Analysis of English vocabulary, including scientific terms, derived from Latin and Greek. No knowledge of Latin or Greek required. May not be counted toward a major or minor in Latin or Greek.

Note: Unless otherwise stated, the prerequisite for each of the following courses is Latin 30 or consent of the chairperson of the department:

115. Roman Philosophy. Cr. 2-4. Study of representative essays of Cicero and of selections from the *De Rerum Natura* of Lucretius.

116. Latin Lyric and Elegiac Poetry. Cr. 2-4. Roman society in the last years of the Republic and in the Augustan Age as reflected in Catullus, Horace, Tibullus, and Propertius.

117. Roman Historians. Cr. 2-4. Selections from the works of Nepos, Sallust, Livy, and Tacitus; study of Roman historiography.

118. Roman Comedy. Cr. 2-4. History of Roman drama. Readings and translation of representative plays of Plautus and Terence.

119. Roman Satire and Epistolography. Cr. 2-4. Selections from the Letters of Pliny and poetry of Juvenal and Martial. Life and manners of the early Roman Empire.

120 (220). Survey of Latin Literature I. Cr. 2-4. (Graduate credit 2-3). Latin poetry and prose of the Roman Republic.

121 (221). Survey of Latin Literature II. Cr. 2-4. (Graduate credit 2-3). Latin poetry and prose of the Roman Empire.

125. Latin Composition. Cr. 2-4. Latin writing of moderate difficulty, including translation into Latin of passages of connected English prose; review of grammar and syntax.

140. Medieval Latin. Cr. 2-4. Readings in secular and religious prose and poetry extending from the early Middle Ages to the Renaissance.

190. Directed Reading in Latin. Cr. 1-4. Intended for students capable of doing independent study in Latin language and literature. Scholarly paper required. Prerequisite: consent of the chairperson of the department.

191. The Teaching of Foreign Languages. Cr. 2. (See French 191 and Education 191.) Prerequisite: admission to Supervised Teaching.

SPANISH

Major. A minimum of 20 credits beyond Spanish 30. Courses must include 111, 120, one course in civilization, and one literature course numbered above 120.

Minor. A minimum of 10 credits above Spanish 30 constitutes a minor in Spanish.

Undergraduate and Graduate Credit.

10. First Semester Spanish. Cr. 4. An introduction to basic grammar, simple conversation and composition, and elementary comprehension. Emphasis is given to the culture of Spain. Credit may not be counted for graduation by a student who has completed a second year Spanish course in high school.

15. Refresher Course in First Semester Spanish. 7 weeks. Cr. 0. S/U grade.

20. Second Semester Spanish. Cr. 4. A continuation of Spanish 10 which completes the study of basic grammar. Students read simple to intermediate works, improve writing skills, and converse extensively in Spanish. Emphasis is given to the culture of Spanish America. Prerequisite: Spanish 10 or equivalent.

25. Refresher Course in Second Semester Spanish. 7 weeks. Cr. 0. S/U grade.

30. Intermediate Spanish. Cr. 4. A course in which the student will perfect grammar skills, deepen his understanding of Hispanic culture, and be expected to read uncomplicated works of literature, write compositions, and be able to sustain a general conversation. Prerequisite: Spanish 20 or equivalent.

50. Topics in Hispanic Literature. Cr. 3. Study of a selected form or aspect of Hispanic literature in English translation. No knowledge of Spanish required. May not be counted toward a major or minor in Spanish.

111. Spanish Composition and Conversation. Cr. 4. A perfection of speaking and writing skills in the Spanish language. Prerequisite: Spanish 30.

114. Contemporary Hispanic Society Through Communications. Cr. 4. Utilization of newspapers, magazines, radio, television, and essay as a basis for conversation, composition, and grammar study. Prerequisite: Spanish 111.

116. Professional Spanish. Cr. 2-3. An intensive study of the Spanish language and customs as applied to vocational situations. Offered alternately for service-oriented professions and business-oriented professions. Prerequisite: Spanish 111.

118. The Spanish Language. Cr. 2-3. An introduction to the development and usage of the Spanish language through the study of linguistics, particularly phonetics and philology. Prerequisite: Spanish 111.

120. Selected Readings in Hispanic Literature. Cr. 4. The reading and discussion of works of Hispanic literature representative of various literary genres, with emphasis on the techniques of literary criticism and the problems of analyzing literature in a second language. Prerequisite: Spanish 111.

130. Spanish Civilization. Cr. 3-4. A course intended to further the student's knowledge of the varied elements of Spanish history and culture. Lectures and individual oral participation in Spanish. Prerequisite: Spanish 111.

131. Spanish-American Civilization. Cr. 3-4. A course intended to further the student's knowledge of the varied elements of Spanish-American history and culture. Lectures and individual participation in Spanish. Prerequisite: Spanish 111.

Note: All literature courses listed below have as their prerequisite Spanish 120, and will offer varying area sub-topics under the general headings listed below. All literature courses are taught entirely in Spanish. Certain of these courses may be repeated provided there is no duplication of material.

160. Themes in Hispanic Literature. Cr. 2-4. The examination of literary themes that cross the boundaries of either epoch or nation.

161. Topics in Golden Age Spanish Literature. Cr. 2-4. Selected areas of study concerning individual genres, authors, movements, or aspects of Spanish literature of the Golden Age. May be repeated, see note above.

162. Topics in Nineteenth Century Spanish Literature. Cr. 2-4. Selected areas of study concerning individual genres, authors, movements, or aspects of Spanish nineteenth century literature. May be repeated, see note above.

163. Topics in Spanish-American Literature. Cr. 2-4. Selected areas of study concerning individual genres, authors, movements, or aspects of Spanish-American literature. May be repeated, see note above.

164 (264). Topics in Contemporary Hispanic Literature. Cr. 2-4. (Graduate credit 2-3.) Selected areas of study concerning individual genres, authors, movements, or aspects of contemporary Hispanic literature. May be repeated, see note above.

190. Directed Reading in Spanish. Cr. 1-4. Intended for students capable of doing independent study in Hispanic language, civilization, or literature. Research paper required. May be repeated, see note above.

191. The Teaching of Foreign Languages. Cr. 2. (See French 191 and Education 191.) Prerequisite: admission to Supervised Teaching.

GEOGRAPHY

Professors

Ferencz P. Kallay

Ph.D., University of Michigan

Alice T. M. Rechlin (on leave)

Ph.D., University of Michigan

John H. Strietelmeier (chairman)

M.A., Northwestern University

Litt.D., Concordia Theological Seminary

Associate Professors

Richard A. Hansis

Ph.D., Pennsylvania State University

Ronald A. Janke

Ph.D., University of Minnesota

Instructor

Kenneth E. Keifenheim

M.A., Michigan State University

Distinguished Service Professor

Emeritus

Alfred H. L. Meyer

Geography is a diverse subject which provides students with a strong, practical liberal arts education offering a wide variety of employment opportunities. The diversity of the discipline stems from its fundamental concern with human behavior as it relates to the earth's varied physical and cultural environments.

The Department's two major objectives are: (1) to provide students with a fundamental knowledge of human behavior as it relates to the earth's physical and cultural environments; and (2) to equip students with marketable skills for employment in jobs related to the discipline, or to prepare them for graduate programs leading toward advanced degrees.

While graduate school training usually enlarges a student's possibilities, employment may be found upon graduation with a baccalaureate degree. The following are a few of the options with representative agencies and firms in the public or private sector for people with a background in geography: book companies (encyclopedia and textbook), Census Bureau, chambers of commerce, city planning agencies, community development companies, data service firms, map companies, map libraries, National Park Service, regional planning agencies, transportation companies, environmental impact analysis for industry and government agencies, industrial location analysis for large companies, land use analysis for planning firms, weather forecasting firms, foreign service agencies, travel companies.

Student interest in geography outside of the classroom is encouraged through the Geography Club, which organizes social activities as well as cultural programs. In addition, those who distinguish themselves by high scholarship may be elected to membership in Gamma Theta Upsilon, the International Geographic Honor Society. The Alpha Xi Chapter of Gamma Theta Upsilon was installed at Valparaiso University on April 24, 1950.

Valparaiso University, with more than 125,000 maps, is the only map repository of the Army Map Service and the United States Geological Survey in Northwest Indiana. Annually, thousands of national, regional, and topographic maps of all continents are received. The Department is also proud of its weather station, complete with satellite photo sensors, as well as its well-equipped cartographic laboratory.

General Major. A minimum of 30 credits in geography. Courses must include 1, 2, 3, 4, 62, at least one course from the 100-108 series, and one course numbered 150 or above.

Professional Major. Offered to students who are contemplating professional or graduate work in geography. Students with a professional major must take at least 35 hours in the department. They are required to take 1, 2, 3, 4, 62, and 72, and at least four of the following systematic or technical courses: 150, 152, 154, 156, 160, 161, 166, 178, 195.

Professional Concentrations. The department emphasizes five professional career phases of the field: Environmental Management/Land Use Analysis; Meteorology/Weather Forecasting; Urban/Regional Planning; Cartography/Map Making; and Tourism. In addition to specified courses to be taken within the Department of Geography, certain cognate courses, which most closely correlate with each program of geographic concentration, are recommended.

Minor. A minimum of 17 credits in geography constitutes a minor. Geography 1, 2, 3, and 4 must be included, plus one additional geography course.

The Valparaiso University-Indiana University Northwest Geography and Geological Association (VIGGA) (Major in Geology). The purpose of this association is: To provide educational opportunities on the undergraduate level in the geological and geographical sciences to the students enrolled at Valparaiso University and Indiana University Northwest, Gary. Since the school year of 1970-1971, full-time undergraduate students in these academic disciplines have been permitted to enroll in Association courses under the following conditions:

- (a) Students may take a maximum of two courses per semester at the other participating institution.
- (b) These courses will be treated as part of the student's normal load at the home institution and tuition and fees will be paid accordingly.
- (c) The total number of credit hours to be taken will be determined by the home institution.
- (d) Students who wish to take courses at the host institution should obtain the recommendation of the Chairperson of the Department of Geography (V.U.)
- (e) Grades earned shall be recorded at the home institution.
- (f) A C or 2.00 average must be achieved on VIGGA courses to qualify the student to register for courses at the host institution in the following semester.

Association students at Valparaiso University are expected to satisfactorily complete the following curriculum from course offerings at Valparaiso University and Association course offerings at Indiana University Northwest in order to complete the major in geology. (Degrees are to be awarded by the home institution):

- 4 **Geomorphology** Cr. 4 (VU)
- G-104 **Evolution of the Earth** Cr. 3 (IUN)
- G-221 **Introductory Mineralogy** Cr. 4 (IUN)
- G-222 **Introductory Petrology** Cr. 3 (IUN)
- G-323 **Structural Geology** Cr. 3 (IUN)
- G-334 **Principles of Sedimentation and Stratigraphy** Cr. 3 (IUN)
- G-406 **Introduction to Geochemistry** Cr. 3 (IUN)
- G-411 **Principles of Invertebrate Paleontology** Cr. 3 (IUN)
- G-490 **Undergraduate Seminar** Cr. 1-2 (IUN)
- 3 **Meteorology and Climatology** Cr. 4 (VU)
- G-420 **Regional Geology Field Trip** Cr. 1-3 (IUN)

Additional Indiana University Northwest Association course offerings open to Valparaiso University students majoring in geology are: G-350, G-410, G-413 (see I.U.N. catalog).

Approval of Schedules. All students taking a major or a minor in the department, and all students planning to teach geography must have their schedules approved by the chairperson of the department at the beginning of each semester.

Undergraduate Credit (Offering Natural Science Credit).

3. Meteorology and Climatology. 2+4, Cr. 4. An introduction into the causes of weather and associated climatic characteristics of each continent. Use of meteorological equipment, arranging, and recording climatic data, constructing weather maps, and forecasting weather conditions. Geography 3 and 4 are complementary studies of the physical environment but need not be taken in sequence.

4. Geomorphology. 2+4, Cr. 4. An introduction to the study of landform development. Geologic structure and the processes of erosion and deposition are analyzed. Geography 3 and 4 are complementary studies of the physical environment but need not be taken in sequence. Field trip.

5. Regional Geomorphology of the United States. 3+2, Cr. 4. A scientific analysis of landform regions of the United States. Field trip optional. Prerequisite: Geography 4.

Undergraduate and Graduate Credit.

1. Geography of the Industrialized World. Cr. 3. A regional analysis of the industrialized lands of the world, particularly the United States and Canada, Europe, the Soviet Union, Japan, Australia and New Zealand. The emphasis is on analyzing how human institutions and behavior, interacting with the physical environment, shape the organization of space.

2. Geography of the Non-Industrialized World. Cr. 3. A regional survey of the so-called "Third World." The emphasis is on cultivating a cosmopolitan sensitivity to and respect for cultures other than our own.

60. Conservation of Natural Resources. Cr. 3. A study of the problems of American resources, especially energy, the institutions and attitudes which lead to these problems and solutions for correcting them. Open to all students.

62. Economic Geography. Cr. 3. The location of economic activities, including agriculture, industry, services, and transportation, as parts of a system. Prerequisite: sophomore standing or above.

70. Current Themes in Geography. Cr. 2-3. This course is designed to examine current geographic topics. A different theme will be selected each time the course is offered. Such topics as settlement patterns, ethnic communities, poverty, landscape in literature, diffusion and perception studies, as well as problems associated with the physical environment may be considered. A student may repeat the course for credit as each new theme is investigated. The three-credit course will extend throughout the full semester and the two-credit course will extend through one-half semester. Prerequisite: sophomore standing or above.

72. (Formerly 154). Cartography. 0+6, Cr. 3. An introduction to cartographic techniques and the compilation and construction of maps. Prerequisite: sophomore standing or above.

74. North American Indian. Cr. 3. Regional treatment of the past and current conditions of North American Indian land use and settlement from the Columbian to the Reservation period. Special attention will be given to the regional analysis of native cultural areas and the impact of federal policy on contemporary social issues. Prerequisite: sophomore standing or above.

100-108. Regional Geography. Cr. 3. A geographic interpretation of the physical, social, political, industrial and commercial processes and patterns of a particular region. Prerequisite: sophomore standing or above. Several regional courses may be offered each semester from the following:

100. United States and Canada. Cr. 3.

101. Latin America. Cr. 3.

102. Europe. Cr. 3. Recommended for students planning to participate in the Overseas Study Program.

103. Africa. Cr. 3.

104. Asia. Cr. 3.

105. Soviet Union. Cr. 3.

106. Near East. Cr. 3.

107. Australia-Oceania. Cr. 3.

108. Field Study in European Geography. Cr. 3. Overseas Study Program only.

150. Urban Geography. Cr. 3. A course treating urban settlements as distinct geographic units. Topics which will be covered include the history of urban settlement, economic classification of cities, and patterns of urban land use. Prerequisite: junior or senior standing.

152. Urban and Regional Planning. Cr. 3. A course treating the nature, purposes, and objectives of modern community planning for the promotion of social and economic well-being. Prerequisite: junior or senior standing. Field trip.

154. (Formerly 72). Communicating with Maps. Cr. 3. The construction and analysis of maps as a form of communication are undertaken. Prerequisite: Geography 72 or its equivalent.

156. Air Photo Interpretation and Remote Sensing. 2+2, Cr. 3. An introduction to aerial photographs and data from remote sensors, including their use for land use planning. Prerequisite: Geography 4 or consent of instructor. May be of interest to students in biology, political science, and civil engineering.

160. Statistical Analysis in Geography. Cr. 3. A course designed to teach the techniques of data collection and quantitative analysis. Prerequisite: junior or senior standing.

161. Research Design. Cr. 3. Each time this course is offered a different topic will be selected for examination through which the methods of research are taught. Normally topics will deal with current problems in northwestern Indiana. The results of the class research frequently contribute to the solution of the problem studied. Prerequisite: junior or senior major or permission of the instructor.

164. The Profession of Geography. Cr. 2. The nature of geography as a professional field of endeavor will be treated in the context of the ethical responsibilities of the practicing geographer. Opportunities to explore various aspects of geographic professionalism will be offered. Open to junior or senior majors and minors.

166 (266). History of Geography. Cr. 3. Readings, papers, and discussion on the development of geographic thought especially in the nineteenth and twentieth centuries; on basic concepts of the field; on the place of geography within thought and value systems; and on the contributions of major geographers, past and present, to the discipline and to the large world of thought. Prerequisite: junior or senior standing.

170 (270). Political Geography. Cr. 2. An investigation of the relations among political activities, organizations and the geographic conditions within which they develop. Political power will be discussed in terms of spatial, human, cultural and ethnic geography. May be of interest to political science majors.

171 (271). Selected Topics in Physical Geography. Cr. 2-3. Advanced studies in physical geography. Such topics as weather forecasting, applied climatology, landform analysis, and the development of environmental impact statements will be considered. May be repeated with a change in topic. Prerequisites: Geography 3 or 4 or the equivalent and consent of instructor.

174 (274). Historical Geography of the United States. Cr. 3. A regional treatment of the exploration, colonization, territorial expansion, migration, transportation, settlement, and economic development of our country in relation to the physical environment. The course is primarily designed for students majoring in one or another of the social sciences. Prerequisite: junior or senior standing. May be of interest to history majors.

176 (276). The Geography of World Affairs. Cr. 2. A workshop course to develop the technique of interpreting current world events in the geographic framework in which such events occur. Prerequisite: junior or senior standing.

178 (278). Field Study. 0+4, Cr. 2. A laboratory and field course designed to develop insight into the purposes and techniques of geographic field work. Prerequisite: consent of instructor.

195. Independent Study. Cr. 2-3. Individual research or readings on a topic in geography agreed upon by a student and a faculty member of his/her choice from within the departmental staff. Prerequisites: junior or senior standing and consent of the chairperson of the department.

196. Internship in Geography. Cr. 2-6. The students will gain practical experience by work in public or private agencies, such as planning firms, national parks, map companies, etc. Prerequisites: application for an internship must be made with the chairperson of the department. Open only to junior and senior geography majors and with consent of the department chairperson.

HISTORY

Professors

Willis D. Boyd

Ph.D., University of California,
Los Angeles

Conrad J. Engelder

Ph.D., University of Michigan

Gottfried G. Krodel

Th.D., Friedrich Alexander University
(Erlangen)

James D. Startt

Ph.D., University of Maryland

Associate Professors

Meredith W. Berg

Ph.D., Tulane University

Dean W. Kohlhoff

Ph.D., The University of Chicago

Martin H. Schaefer

M.A., Washington University

R. Keith Schoppa (chairman)

Ph.D., University of Michigan

Visiting Assistant Professor

Phillip W. Wilkin

Ph.D., Indiana University

Distinguished Service Professor

Emeritus

Walter E. Bauer

Professors Emeriti

Daniel R. Gahl

Arthur P. Kautz

One of the central disciplines of the traditional liberal arts, history is concerned with understanding the development of societies and culture which produced the world as we know it. The historian is present-minded, convinced that illumination of the past is of fundamental importance in today's decision-making and for tomorrow's dreams. History provides a solid major for those with career goals in law, teaching, journalism, government, and the ministry. Combining a history major with a general business sequence has proven to be a popular alternative for those with strong interests in

history and who plan to pursue a business career. Since the history student integrates materials from the social and behavioral sciences, literature, philosophy, religion, and the arts, history is also a field for students who view the undergraduate years as time to explore a variety of subjects.

Major. A minimum of 30 credits in history. Courses must include History 5, 10, 170, 175 (for which, at the discretion of the department, the research option of 180 may be substituted), and 196. Twelve hours of the major must be taken in 100-level courses in addition to those listed above; for these twelve hours, the student must elect at least one course in each of the following fields: history of the Americas, Europe, and non-Western.

Students planning on graduate work are strongly urged to acquire reading proficiency in at least one modern foreign language.

Minor. A minimum of 18 credits in history, including History 5 and 10. Six of the remaining twelve hours must be 100-level courses, divided into two areas.

Pre-Law Students. Pre-law students who are majoring in history should consult with their adviser about appropriate course selections and about the possible selection of a second major or minor.

Approval of Schedules. Students taking a major or minor in the department must have their schedules approved by the chairperson at registration each semester. In addition, each class of majors is assigned a member of the department for general advising.

Undergraduate Credit.

SURVEY. These courses may fulfill the general education requirement.

***5. (Formerly 1). History of Western Thought and Society.** Cr. 3. A study of the thought and social development that has characterized Western society from ancient to modern times. Special attention will be given to identifying the basic traditions of Western culture and to examining the process of historical change.

***10. (Formerly 2). Introduction to the Contemporary World.** Cr. 3. A survey of modern Western and non-Western history. Particular emphasis will be placed on the development of the various world civilizations in recent centuries and on the interaction that has occurred among them.

****20. (Formerly 30). United States History to 1865.** Cr. 3. A study of the various aspects of American civilization from the age of discovery to the end of the Civil War, with emphasis on the development of democratic ideas and institutions.

****21. (Formerly 31). United States History Since 1865.** Cr. 3. A study of various aspects of American civilization from the Civil War to the present, with emphasis on the development of industrial and world power against a background of social and cultural tensions.

30. (Formerly 50). Origins of Latin American Civilization. Cr. 3. A survey of the major periods of Latin American history to 1825, with emphasis on the pre-Columbian Indian cultures, Africa's contribution, and the Iberian heritage.

31. (Formerly 51). Contemporary Latin American Civilization. Cr. 3. A survey of the republics from independence to the present, relating contemporary Latin American problems to underdevelopment and unrest in the current world scene.

*Credit for History 5 and 10 may be earned through the College Level Examination Program (CLEP) subject examination in Western Civilization.

**Credit for History 20 and 21 may be earned through the College Level Examination Program (CLEP) subject examination in American History.

40. (Formerly 60). Traditional East Asian Civilization. Cr. 3. A survey of the traditional cultures of China, Japan, Vietnam, and Korea prior to the impact of Western civilization.

41. (Formerly 61). Modern East Asian Civilization. Cr. 3. A survey of the modern history of China, Japan, Vietnam, and Korea, with emphasis on the meeting of East and West and the struggle for development and self-expression in our times.

OVERSEAS STUDY CENTERS ONLY.

151. (Formerly 122). Problems in Modern British History. Cr. 3. An examination of modern British history emphasizing selected problems. Cambridge Center.

152. (Formerly 127). Problems in Modern German History. Cr. 3. An examination of modern German history emphasizing selected problems. Reutlingen Center.

Undergraduate and Graduate Credit.

EUROPEAN HISTORY.

Prerequisite: sophomore standing or consent of the chairperson of the department.

111 (211). (Formerly 101 and 102). Greek and Roman Civilization. Cr. 3. A study of the Greek and Roman political, social, and intellectual development from the Mycenaean period to the fourth century A.D.

112 (212). (Formerly 105). Europe in the Age of the Reformation. Cr. 3. A study of the political, socioeconomic, and religious conditions in Europe under the impact of the Protestant Reformation.

113 (213). (Formerly 121). History of Modern England. Cr. 3. A study of English history in the eighteenth, nineteenth, and twentieth centuries. Stress will be placed on understanding the political, cultural, and industrial development of England as a great power and its position in the contemporary world.

114 (214). (Formerly 129). The British Imperial Experience. Cr. 3. A study of the British empire, emphasizing its evolution in the nineteenth and twentieth centuries. Particular attention will be given to an introduction of the Old Dominions (Canada, Australia, New Zealand, and South Africa, to the British in India, and to interpretations of imperialism.

115 (215). (Formerly 116). Contemporary Europe. Cr. 3. A study of the European scene from the Great Depression, Nazi Germany, and World War II to the present.

HISTORY OF THE AMERICAS.

Prerequisite: sophomore standing or consent of the chairperson of the department.

121 (221). (Formerly 131). The American Revolution, 1763-1789. Cr. 3. A detailed study through readings and discussion of the unresolved conflicts between Great Britain and her American colonies; the political, military, and social aspects of the revolution; and the post-war problems culminating in the adoption of the Constitution.

122 (222). (Formerly 132). Slavery, Abolitionism, and Sectionalism, 1815-1860. Cr. 3. A detailed study through readings and discussion of the institution of slavery, the growth of abolitionism and other reform movements, and the development of sectionalism leading to the outbreak of the Civil War.

123 (223). (Formerly 133-233). Civil War and Reconstruction. Cr. 3. A study of the great watershed conflict in American history, with special emphasis on the problems of Black Americans.

124 (224). (Formerly 135). Depression and War: The United States, 1929-1945. Cr. 3. This course examines the nature of the Great Depression and its effects upon the relationship of government to citizens in the United States. It also traces the European and Far Eastern origins of the American involvement in World War II as well as the diplomatic and military conduct of that war.

125 (225). The Age of Anxiety: The United States since 1945. Cr. 3. An examination of the post-war American response to the prospect of living in an uncertain world.

126 (226). (Formerly 140). American Constitutional History. Cr. 3. An examination of the growth of the American constitution from its colonial origins to the present. Emphasis is placed on such developments as the constitution's formation, its testing in the Civil War, and its adjustment to the problems of twentieth century society.

127 (227). History of American Political Parties. Cr. 3. A study of the development of American political parties from their appearance in the eighteenth century to the present. Emphasis is placed on the evolution of political leadership, the creation of coalitions, and political campaign behavior.

131 (231). (Formerly 150-250). History of Mexico. Cr. 3. A study of the struggle for political, economic, and cultural identity in America's southern neighbor.

NON-WESTERN HISTORY.

Prerequisite: sophomore standing or consent of the instructor.

141 (241). (Formerly 161). History of Modern China. Cr. 3. A study of the decline of traditional civilization resulting from domestic crisis and foreign pressures, and the search for a new orthodoxy in the Chinese Revolution.

142 (242). History of Modern Japan. Cr. 3. A study of Japan's rise to position as world power with emphasis upon the consequent social and cultural dislocations in the twentieth century.

SPECIALIZED OFFERINGS.

160 (260). Topics in History. Cr. 3. An in-depth study of an historical topic, problem or issue. Topics will vary according to student interest and instructor choice. Possible topics include American colonial history, the development of the press in Britain and America, the Renaissance, the French revolution, traditional Chinese culture, and the history of women. This course may be repeated for credit if the topics are different. Although majors may take any number of Topics courses, no more than two may be included in a thirty-hour major.

170. Introduction to Historical Research. Cr. 3. This course will examine the discipline of history, the sources of historical knowledge, and the problems and procedures of historical method. Prerequisite: 6 hours of history.

172. Reading and Discussion Seminars. Cr. 2-3. Full- or half-semester courses covering a variety of subject areas with subtitles and content dependent upon student interest and instructor choice. In recent years these have included courses on Slavery in the Americas, the History of the American South, Revolutionary Russia, the Vietnam War through Film and Literature, Pearl Harbor, American Immigration History, and the Cuban Revolution. This course may be repeated for credit if the topics are different. Prerequisite: junior standing or consent of the chairperson of the department.

175. Research Seminars. Cr. 3. These are full-semester courses designed for majors, but open to other students with junior-senior standing also. They offer intensive research in both primary and secondary sources, and instruction in historical methodology. A major paper constitutes the largest part of the semester's work. This course may be repeated for credit if the topics are different. Prerequisites: junior standing and consent of the chairperson of the department.

180 (280). Supervised Study. Cr. 2-3. An opportunity for students (1) to read a number of significant works on a given topic in history, or (2) to do research and write a major paper on a topic which is not covered in any scheduled offering of the department. Open to students who have taken at least eighteen hours of history and who have the prior consent of both the instructor and the department chairperson. If the student chooses the research option, he must have completed History 170 before undertaking this course. This course can only be taken once from a given instructor, only once per subject area, and only once for a thirty-hour major.

191. The Teaching of Social Studies. Cr. 2. (See Education 191.) A study of the methods of teaching social studies in secondary schools. Prerequisite: admission to Supervised Teaching. This course may not be counted toward a major or minor in the department.

196 (296). The Interpretation of History. Cr. 2. An introduction to selected major historians and their approaches to problems of interpretation faced by students of history. Prerequisite: six hours of history.

HOME ECONOMICS

Associate Professors

Gene R. Evans

M.S., University of Iowa

E. Lucile Shabowich (chairwoman)

M.S., New Mexico State University

Instructor

Paula B. Sampson

M.S., Indiana State University

Professor Emerita

Lois J. Simon

Assistant Professors

Rhea A. Adgate

M.A.L.S., Valparaiso University

Anita L. Manning

B.S., Cornell University

The focus of the Home Economics Department is to provide professional training for those who seek to serve the basic social unit of society—the family—through education, business, or organizations. Principles from the curriculum are to be applied to the problems of daily life, to aid in the development of autonomous individuals within the family, and to improve the quality of the environment in which they live.

Carrying out this task requires the practical knowledge of science; but Home Economics also looks to philosophy, history, literature, religion, and the arts for a deeper understanding of the human condition and human problems.

Courses offered by the Department are designed to develop students intellectually and to prepare them professionally. In order to fulfill requirements for the major, students must complete requirements in one of the following emphases. (Students should consult their advisers to determine additional requirements, if any, for professional certification.)

General Home Economics. A minimum of 32 credits in home economics is required which must include 2, 5, 7 or 45, 8, 140. In addition, students must complete Chemistry 43, 44; Biology 50; Psychology 51; Sociology 26; Speech/Drama 45.

General Dietetics. A minimum of 32 credits in home economics is required which must include 5, 8, 45, and 140. In addition, students must complete Chemistry 43, 44, 55; Economics 71; Sociology 1; Biology 50; Psychology 51; and English 57.

Students entering this program after their freshman year may find an additional semester(s) required to complete the requirements of the program.

This curriculum meets the American Dietetic Association requirements for a Plan IV undergraduate general emphasis program. In addition to this plan of study, it is necessary to complete a postgraduate clinical experience component and pass the registration examination to become a registered dietitian. Details may be obtained from the program adviser.

Teacher Education. A minimum of 49 credits in home economics is required which must include 6, 8, 45, 104, 140. In addition, students must complete Chemistry 43, 44; Biology 50; Sociology 26; Speech/Drama 45; Psychology 51. (For education requirements see page 67.)

Upon completion of all the requirements, the student may apply for a consumer/homemaking vocational license.

Child Development. A minimum of 32 credits in home economics is required which must include 2, 5, 8, 45, 140. In addition, students must complete Chemistry 43, 44; Biology 50; Psychology 51; Sociology 26; Speech/Drama 45.

Interior Design. A minimum of 32 credits in home economics is required which must include 2, 5, 7, 8, 140. In addition, students must complete Chemistry 43, 44; Biology 50; Psychology 51; Sociology 26; Speech/Drama 45.

Fashion Merchandising. A minimum of 32 credits in home economics is required which must include 2, 5, 7, 8, 140. In addition, students must complete Chemistry 43, 44; Biology 50; Psychology 51; Sociology 26; Speech/Drama 45. From the College of Business Administration, the following courses must be completed: Accounting 52, Economics 72, Administrative Sciences 101 (MKM) and 101 (GLM); and two of the following: Administrative Sciences 131 (MKM), 132 (MKM), 135 (MKM).

Foods Merchandising. A minimum of 32 credits in home economics is required which must include 2, 5, 8, 45, 140. In addition, students must complete Chemistry 43, 44; Biology 50; Sociology 26; Psychology 51; Speech/Drama 45. From the College of Business Administration, the following courses must be completed: Accounting 52; Economics 72; Administrative Sciences 101 (MKM) and 101 (GLM); and two of the following: Administrative Sciences 131 (MKM), 132 (MKM), 135 (MKM).

Minor. A minimum of 15 credits in home economics constitutes a minor. Courses must include 7 or 45, 8, and 115.

Other Plans. The department offers programs of study in several areas: Home Economics/journalism; Home Economics/social work; Home Economics/business sequence.

Departmental Organizations. The Valparaiso University Student Home Economics Association (SHEA) is affiliated with the national and state professional home economics organizations. Membership is open to all students. Professional programs are presented once a month.

The Student Dietetic Association is open to all students interested in the dietetics profession.

The Gamma Tau Chapter of the national home economics honor society, Kappa Omicron Phi, was installed at Valparaiso in 1975. Students with outstanding scholarship and membership in SHEA are invited to membership in their junior or senior year.

Approval of Schedules. All students taking a major or minor in this department must have their schedules approved by the chairperson of the department at the beginning of each semester.

Undergraduate Credit.

1. (Formerly 12). **Basic Clothing Construction.** 1+4, Cr. 2. The purpose of this course is to enable the student to understand elementary principles of clothing construction and learn basic skills.

2. (Formerly 11). **Interdisciplinary Aspects of Clothing.** 3+0, Cr. 3. An interdisciplinary approach to the study of the social, psychological, historical, cultural, economic, and aesthetic forces that affect clothing behavior.

- 4. Elementary Graphics.** (Also offered as General Engineering 4.) 1+3, Cr. 2. A course to acquaint the student with the graphic techniques of lettering and line work, scale drawing and size description, and orthographic projection. Emphasis is on architectural drawings. A survey of methods, practices, and techniques of home construction is included. (Not open to engineering students.) Prerequisite: sophomore standing. (Given in alternate years.)
- 5. Foods.** 3+0, Cr. 3. A course covering the history of food from ancient times to modern, principles to the preparation of food and the ability to evaluate quality of prepared food.
- 6. Principles of Food Preparation.** 2+4, Cr. 3. Emphasis on the application of scientific principles to the preparation of food and the ability to evaluate quality of prepared food.
- 7. Fundamental Nutrition.** 3+0, Cr. 3. A study of the basic principles of human nutrition with emphasis on practical application.
- 8. Art in Daily Living.** 3+0, Cr. 3. A study of design elements and principles in relation to our human environment. The goal is the development of aesthetic awareness and evaluation skills. Field trip may be arranged.
- 20. Clothing Construction and Flat-Pattern Design.** 1+6, Cr. 3. Principles of designing with the flat pattern and fitting garments. Evaluation of various construction methods in relation to style, fabric construction, and end use. Prerequisite: Home Economics 11 or consent of the chairperson of the department.
- 45. Human Nutrition.** 3+0, Cr. 3. Basic principles of human nutrition including the functions, requirements and food sources of nutrients. Prerequisite: Chemistry 44.
- 51. Meal Management.** 1+6, Cr. 4. The fundamentals of planning, preparing and serving meals with emphasis on the control of time, money, energy and equipment. Prerequisites: Home Economics 6 and 7 or 45.
- 52. Tailoring.** 1+6, Cr. 3. Custom hand and speed tailoring techniques are compared by constructing a blazer or coat. Field trip arranged if time permits. Prerequisite: Home Economics 20 or consent of the chairperson of the department.
- 65. Physiological Chemistry.** (Also offered as Chemistry 55.) 3+0, Cr. 3. The chemistry of proteins, carbohydrates, and fats, and the changes these undergo during processes of digestion and metabolism; brief consideration of enzymes, vitamins, and the chemistry of food processing. This course may not be counted towards a major or minor in chemistry. Prerequisite: Chemistry 44.
- 101. Family Health.** (Also offered as Physical Education 90.) 2+0, Cr. 2. A study of health concerns as they relate to the needs of the family. Offered as a short course.
- 102. Interior Design.** 3+0, Cr. 3 or 3+3, Cr. 4. Application of the principles of art to the design of the home and its furnishings as demonstrated in historic and contemporary dwellings. An additional credit may be earned only by interior design majors through an internship experience. Field trip arranged. Prerequisites: Home Economics 8 and junior standing or consent of the chairperson of the department.
- 104. Textiles.** 2+2, Cr. 3. Textile fibers, yarns, fabric constructions and finish characteristics in relation to satisfactory performance for consumer use are studied. A goal is the development of evaluation skills for textile care and use through study and objective textile testing. Field trip may be arranged. Prerequisites: junior standing or consent of the chairperson of the department and Chemistry 44.
- 114. Housing and Equipment.** 4+0, Cr. 4. A study of family housing needs as influenced by family life cycle, geographic location, income, and sociological factors. Problems concerning the choice of house plans, exterior designs, and home construction practices are included. Home equipment including purchasing, operation, care, and servicing will also be considered. Field trip arranged. Prerequisite: junior standing.
- 115. (Formerly 168). Consumer Economics.** 3+0, Cr. 3. Various consumer problems, products, services, legislation and agencies are studied.
- 125. Experimental Foods.** 1+5, Cr. 3. A course in food science theory and preparation using sensory and objective methods for evaluating food products. Recipe development and applications to the food industry are included. Prerequisites: Home Economics 6 and Chemistry 44.

126. Cultural Aspects of Food. 2+3, Cr. 3. A study of the historical, social, psychological, economic, religious and aesthetic significance of food customs in various cultures. Prerequisite: junior standing or consent of the chairperson of the department.

131. Apparel Design Through Draping. 1+4, Cr. 3. Creating original designs using apparel design principles by draping fabric on a dress form. Designs utilize an understanding of the interrelationships of material, design and form. Prerequisites: Home Economics 8 and 20.

135. The Fashion Business. 3+0, Cr. 3 or 3+3, Cr. 4. A study of the fashion industry related to fashion merchandising. A multi-faceted promotional problem will be assigned. An additional credit may be earned through an intern work experience. A field trip may be arranged. Prerequisites: Home Economics 2 and 8, Administrative Sciences 101 (MKM), and senior standing.

140. Child Care and Development. 3+2, Cr. 4. A study of factors affecting the developmental aspects of the child from birth through age five. Observation and participation with a preschool child in a family setting, and preschool visitations are included. Prerequisites: Psychology 51 and junior standing.

149. Quantity Food Service. 2+4, Cr. 3. A study of quantity food production and service. Consideration is given to menu planning, production and service methods, storage facilities, equipment, and sanitation necessary for institutional food service. Field trips and laboratory arranged to observe and study various types of food service operations. Prerequisite: Home Economics 51.

150. Organization and Management of Food Services. 3+0, Cr. 3. The philosophy and functions of management in food service systems. Considers the complexities of the organization with its inherent problems and emphasizes the supervision of personnel, as well as the control of equipment, time, money and materials. Prerequisites: Home Economics 149 and Accounting 52 or consent of the chairperson of the department.

152. Management in Family Living. 3+0, Cr. 3. Home management principles and use of personal and family resources are studied.

155. Home Management Practicum. 3+0, Cr. 3. The course content is designed for practical application of home management principles to resource use. Prerequisite: Home Economics 152.

162. Advanced Nutrition. 3+0, Cr. 3. An advanced study of the metabolism of nutrients and nutrient requirements during the life-cycle. Techniques for the evaluation of nutritional status are included. Prerequisites: Home Economics 45, Biology 115, and Chemistry 44 and 55 or consent of the chairperson of the department.

164. Diet Therapy. 3+0, Cr. 3. Application of the principles of human nutrition to the dietary treatment of acute and chronic illnesses. Prerequisites: Home Economics 45, Biology 115, Chemistry 44 and 55 or consent of the chairperson of the department.

185. Principles and Philosophy of Vocational Education. 3+0, Cr. 3. A study of the fundamental philosophy and principles of vocational education as related to the needs of the vocational educator. Consideration is given to the development, organization, and coordination of vocational education. Field trip arranged.

190. Organization and Coordination of Vocational Education. 3+0, Cr. 3. A study of the organization and coordination of vocational education on the local, area, state, regional, and federal levels. Principles of organization and procedure as needed by the consumer/home-making teacher are considered. Field trip arranged. Prerequisite: senior standing or consent of the chairperson of the department.

191. The Teaching of Vocational Home Economics. Cr. 2. (See Education 191.) A study of the problems and methods of teaching vocational home economics. This course may not be counted towards a major or minor in this department. Prerequisite: admission to Supervised Teaching.

195. Independent Study. Cr. 1-3. Independent work in a specialized area of home economics as agreed upon by the student and faculty adviser. Prerequisite: junior or senior standing.

196. Professional Seminar and Field Experience in Dietetics. Cr. 2. Field work in hospitals or other health care facilities arranged with registered dietitians. Seminar discussions and presentations will be based on field experiences and focus on broadening professional preparation. Prerequisite: junior or senior standing.

INTERNATIONAL ECONOMICS AND CULTURAL AFFAIRS

Administrative Committee: Professor Helms (Foreign Languages), Chairman; Professor Trost (Political Science); Associate Professors Bernard (Economics), Hansis (Geography), J. Peters (Foreign Languages), and Schoppa (History).

Students completing the Program in International Economics and Cultural Affairs will have fulfilled concentration requirements for the Bachelor of Arts degree under the Program Option.

Objectives. This special interdisciplinary program is designed to provide essential background for students considering careers in the fields of international commerce or government service. In pursuance of this goal, it provides background in a modern language and the culture and customs of those who speak it, instruction in international economics, and a survey of appropriate areas of geography, history, and political science. Students interested in pursuing the Program in International Economics and Cultural Affairs should contact the Chairperson of the Administrative Committee.

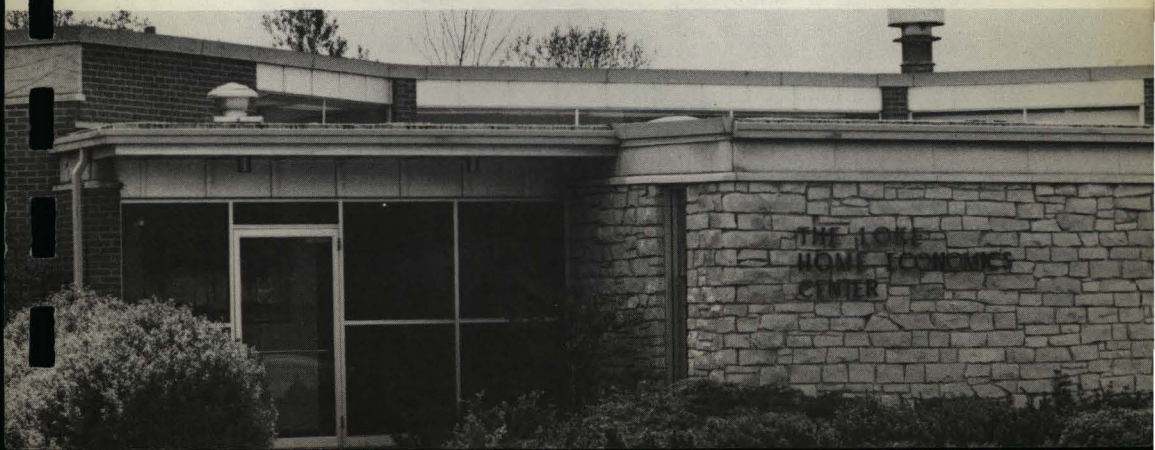
Students are urged to take, in addition to the required courses, a number of recommended elective courses. A list of these recommended courses is available from the Chairperson of the Administrative Committee.

*Foreign Language		Credits
French		
50	Topics in French Literature	3
111	French Composition and Conversation	4
114	Contemporary French Language and Communication	4
116 or 117	Professional French or Advanced French Translation	2
130	French Civilization	4
		<hr/> 17
German		
50	Topics in German Literature	3
110	Conversational German I	2
112	Written German	2
114	Contemporary German Language in the Mass Media	4
116 or 117	Professional German or Advanced German Translation	2
130	German Civilization	4
		<hr/> 17
Spanish		
50	Topics in Hispanic Literature	3
111	Spanish Composition and Conversation	4

*Students must select one Foreign Language concentration. Please note that the courses listed are taken beyond the introductory level.

114	Contemporary Hispanic Society Through Communications	4
116	Professional Spanish	2
130	Spanish Civilization	4
	or	
131	Spanish-American Civilization	4
		<hr/> 17
	Other Requirements	
Economics		
71, 72	Principles of Economics	6
126	International Economics	3
128	Economics of Developing Nations	3
160	Comparative Economic Systems	3
		<hr/> 15
Political Science		
44	Comparative Politics	3
153	Politics of Industrialized States	3
	or	
154	Politics of Developing States	3
		<hr/> 6
Geography		
62	Economic Geography	3
101-108	Regional Geography	3
		<hr/> 6
History		
30	Origins of Latin American Civilization	3
31	Contemporary Latin American Civilization	3
	or	
10	Introduction to the Contemporary World	3
115	Contemporary Europe	3
	or	
40	Traditional East Asian Civilization	3
141	History of Modern China	3
		<hr/> 6

In addition to the above required courses, a special senior research project earning 3 credit hours is required of each student pursuing this interdisciplinary program. The project shall be under the jurisdiction of the department appropriate to the subject selected for research.



JOURNALISM

Associate Professor

Carl F. Galow (chairman)
Ed.D., Oklahoma State University

Instructor

Kathryn M. Wall
M.A., Indiana University

The study of journalism and mass communications is basic to all areas of society, particularly in an era dependent upon instantaneous information and computerized technology. Mass communications bind societies, and their impact on, and functions in, society are inescapable.

The Department's goal is to develop communication practitioners with a keen sense of professionalism who fully understand their social, legal, and ethical responsibilities.

The written word is the basis of all lasting and effective communication, and journalism study is conducted on this premise. Students entering the program should be well-grounded in grammatical skills and possess basic typing proficiency to avoid the need for remedial work.

Major. 30 credits in journalism and related fields. Courses must include Journalism 130, 131, 132, 170, and at least 3 credits of internship in 171.

In addition to the above, the student must earn 15 credit hours selected from the following: Art 61, 62, or 65; Art 131 or 132; Speech and Drama 42 or 143; Journalism 133, 134, 135, 136, 137, 138, 172, 173, or 175. In certain instances and with consent of the chairperson of the department, the student may substitute courses in other departments for those on the list. A program of study should be submitted to the chairperson of the department by the first semester of the junior year.

Minor. A minimum of 18 credit hours which must be completed in the following manner: Journalism 130, 131, 132, 170; and two courses selected from Art 61, 62, 65, 131, 132; Speech and Drama 42, 143; and Journalism 133, 134, 135, 136, 137, 138, 172, 173, and 175.

Teaching Minor. A minimum of 24 credit hours which must be completed in the following manner: Journalism 130, 131, 132, 134, 170, and 176; and 6 hours of electives from the following: Speech and Drama 42, 143; Art 61, 62, 65, 131, 132; English 57, 122, 131; and Journalism 133, 135, 136, 137, 138, 172, 173, and 175.

Approval of Schedules. All students majoring or minoring in journalism must have their schedules approved by the chairperson of the department at the beginning of each semester.

Undergraduate and Graduate Credit.

130. Introduction to Mass Communications. Cr. 3. A course in the history, development and function of mass media in society. Analysis and evaluation of the performance of the media and their relationship to society and government. Ethical and legal decisions affecting the First Amendment. Laboratory practice. Prerequisite: English 2 or 5.

131. Newswriting. Cr. 3. A course in the fundamentals of news writing and news gathering. Practice in writing various types of news stories; problems of in-depth writing and reporting; introduction to newspaper organization and methods. Laboratory and field work. Prerequisite: English 2 or 5.

132. Newsediting. Cr. 3. A course in copy editing, headline writing, and newspaper make-up. Basic principles of news evaluation; photo editing; introduction to newspaper layout. Laboratory practice. Prerequisite: Journalism 131 or consent of the chairperson of the department.

133. Broadcast News. Cr. 3. A course in the fundamentals and special requirements of radio and television news reporting, writing, and editing. Laboratory and field work. Prerequisite: Journalism 131 or consent of the chairperson of the department.

134. Introduction to Advertising. Cr. 3. Introduction to advertising—copy preparation, graphics, design. Principles of advertising in relation to mass communication. Prerequisite: Journalism 130 or consent of the chairperson of the department.

135. Introduction to Public Relations. Cr. 3. Survey of the history, development, principles, and practices of public relations; investigation of public relations ethics, relationships, and role in mass media and society; case studies and experiments in public relations practices. Prerequisite: sophomore standing.

136. Feature Writing. Cr. 3. A course in human interest writing. Creative news writing emphasizing originality of style and imaginative treatment in composition of news features and the personality sketch. Laboratory practice. Prerequisite: Journalism 131 or consent of chairperson of the department.

137. Editorial and Opinion Writing. Cr. 3. A course in structure, style, and principles of editorial, column, commentary, and critical review writing. Laboratory practice. Prerequisite: Journalism 131 or consent of the chairperson of the department.

138. Advertising/Public Relations Copywriting. Cr. 3. A course in persuasive and effective copywriting for advertising or public relations. Prerequisite: Journalism 134 or 135 or consent of the chairperson of the department.

170. Advanced Newspractice. Cr. 3. A course for the advanced journalism student, comprising in-depth reporting, opinion and editorial writing, specialized writing. Prerequisites: Journalism 131 and 132 or consent of the chairperson of the department.

171. Internship/Independent Study. Cr. 1-5. Internship with regular field work in a non-student journalistic agency or independent study project to meet the needs of an individual student or a group of students having a special interest in a journalistic topic or problem not covered in the regular journalism course offering. Prerequisite: Journalism 131 or 132 or consent of the chairperson of the department.

172. Senior Seminar: Special Problems in Journalism. Cr. 3. Examination of a specific topic in journalism and/or mass communication. Enrollment limited. Free discussion and active student participation are key ingredients of this seminar. Admission by consent of the chairperson of the department.

173. Advertising/Public Relations Practicum. Cr. 3. Advanced study of public relations or advertising, offered in alternate semesters. Emphasis on practical work, problem solving, and case study. Prerequisites: Journalism 134 or 135 and junior standing.

175 (275). Mass Media in Modern Society. Cr. 3. Study of interaction between mass media and society. Examination of freedom of the press theories, communication theory, and relationships—problems in the role of the press with government, business, the courts, and other segments of society.

176 (276). Supervision of Student Publications. Cr. 3. Problems and practices of supervision of secondary student newspapers, magazines, yearbooks, and other school publications. Includes examination of state-adopted texts, the role of the high school press, budgeting and financial responsibilities, organizing staffs, working with school administration, establishing curriculum, reviewing other school publications and basic journalistic styles. Prerequisite: admission to Supervised Teaching, Journalism 132, or consent of chairperson of the department. Field trip and laboratory fee. This course may not be counted toward a major or minor in the department.

191. The Teaching of Journalism. Cr. 2. (See Education 191.) A study of the methods of teaching journalism and mass media-related courses in the secondary school. Prerequisite: admission to Supervised Teaching, Journalism 176, or consent of the chairperson of the department. This course may not be counted toward a major or minor in the department.

MATHEMATICS AND COMPUTER SCIENCE

Professors

Kermit H. Carlson
Ph.D., University of Wisconsin
Louis A. Foster
Ph.D., Purdue University
Marvin G. Mundt
Ph.D., Iowa State University
Verne R. Sanford (chairman)
Ph.D., University of Michigan
John R. Sorenson
Ph.D., Purdue University

Associate Professors

Lee A. Carlson
M.A., University of Michigan
M.S., The University of Chicago
Norman L. Hughes
M.S., University of Wisconsin
Diane H. Krebs
M.S., University of Michigan
Malcolm W. Reynolds
M.S., University of Michigan

Assistant Professors

James Caristi
Ph.D., University of Iowa
Dennis G. Collins
Ph.D., Illinois Institute of Technology
Joel P. Lehmann
Ph.D., North Carolina State University
William A. Marion
D.A., University of Northern Colorado
Linda A. Proudfit
Ph.D., Indiana University
Daniel J. Richman
Ph.D., University of Wisconsin
Jerry M. Wagenblast
M.S., Illinois Institute of Technology

Associate Professor Emerita

Ruth K. Deters

MATHEMATICS.

Major. A minimum of 28 credits in mathematics. Courses must include those in one of the following programs.

Program I (Emphasis on Mathematical Analysis): 71 or 75, 72 or 76, 77, 102, 114 or 139, 177 or 184, 193, 194 or 196, and one additional course numbered above 100.

A student seeking the Bachelor of Science degree in mathematics must complete Program I and include Mathematics 107 in the 32 credits in mathematics required for this degree.

Program II (Emphasis on Finite Mathematics): 51, 52, 54, 102, 132 or 163, 194 or 196, Computer Science 37 or 47, and two of the following: Mathematics 112 or 114 or 139, 132 or 163, Computer Science 38 or 48.

If a mathematics major will not be completing a second major in another department, then at the beginning of the junior year, he/she must submit a detailed program for his/her field of concentration, subject to approval by the chairperson of this department. The plan of study should include at least 40 credits in mathematics and related fields and it must include at least one course which applies mathematics to a related field (e.g., Mathematics 163).

A student in Program II who files a Plan of Study should include a minor in biology, computer science, economics, geography, political science, psychology, or sociology.

A student having a major in view should begin mathematics in the freshman year. A mathematics major should elect French or German to satisfy the foreign language requirement of the College of Arts and Sciences. Anyone planning to do graduate work in mathematics should complete Program I and include Mathematics 114 and 177.

Minor. A minimum of 15 credits in mathematics, including one of the courses 36, 52, 72, or 76 constitutes a minor. No more than two of the following courses may be included: 35, 36, 43, 44, 51, 52, 70, 71, 72, 75, 76.

Placement Examination. All entering students should take the Mathematics Placement Examination during Orientation. Prior to registration, the Department of Mathematics and Computer Science will recommend which course(s) each student should take.

Approval of Schedules. All students taking a major or minor in the department and all students planning to teach mathematics must have their schedules approved by the chairperson (or representative) of the department at the beginning of each semester.

Undergraduate Credit.

14. Mathematical Ideas. Cr. 4. (See paragraph on Placement Examination). A one semester course intended primarily for students majoring in the humanities. Important concepts in mathematics will be studied from a non-technical point of view. Restricted to students who have not previously completed a college mathematics course.

35. Finite Mathematics. Cr. 4. (See paragraph on Placement Examination). A course for students not majoring in mathematics or the physical sciences. Topics include a review of algebra; sets; linear functions and their graphs; applications of linear functions; sequences and mathematics of finance; elementary matrix theory; solutions of systems of linear equations; an introduction to linear programming and finite probability.

***36. Functions and Intuitive Calculus of One Variable.** Cr. 4. This course is intended for students not majoring in mathematics or the physical sciences. Topics include inequalities; polynomial, exponential and logarithmic functions and their graphs; composition and inverses; differential and integral calculus and applications. Prerequisite: Mathematics 35 or 51 or the equivalent.

41. Laboratory in Elementary Mathematics I. (Mathematics 41 and 42 together were formerly one course, Mathematics 40.) 0+1, Cr. 0. This course is designed to provide an opportunity for prospective elementary teachers to learn mathematical concepts in an active, materials-oriented context and to acquaint them with materials appropriate for use in the elementary school. Topics correspond to those in Mathematics 43. Enrollment is restricted to students majoring in elementary education. Prerequisite: concurrent registration in Mathematics 43. S/U grade.

42. Laboratory in Elementary Mathematics II. (Mathematics 41 and 42 together were formerly one course, Mathematics 40.) 0+1, Cr. 1. A continuation of Mathematics 41. Topics correspond to those in Mathematics 44. Prerequisite: concurrent registration in Mathematics 44. S/U grade.

43. Mathematics for Elementary Teachers I. Cr. 4. This course is restricted to students majoring in elementary education. Topics include elementary logic; sets; problem solving; numeration systems; the whole number system; the rational number system; and elementary number theory.

44. Mathematics for Elementary Teachers II. Cr. 4. A continuation of Mathematics 43. Topics include two and three-dimensional geometry; measurement; functions; graphing; probability and statistics. Prerequisite: Mathematics 43.

51. Finite Mathematics and Precalculus. Cr. 4. (See paragraph on Placement Examination). A course for students with a good foundation in mathematics who are interested in mathematical models for the life, management, or social sciences. Topics include elementary functions (polynomial, rational, algebraic, exponential, logarithmic, and trigonometric); absolute value and inequalities; matrix algebra and linear programming; finite probability; sequences and mathematics finance.

*Credit for Mathematics 36 may be earned through the College Level Examination Program (CLEP) subject examination in Introductory Calculus.

52. Intuitive Calculus of One or More Variables. Cr. 4. A course for students with a good foundation in mathematics who are interested in mathematical models for the life, management, or social sciences. Topics include limits; continuity; derivatives and their applications; integrals and their applications; and selected topics in multivariate calculus. Prerequisite: Mathematics 51 or the equivalent.

****54. Statistical Analysis.** Cr. 3-4. A course in statistical methods for students not majoring in mathematics. Topics include probability, empirical and theoretical frequency distributions, sampling, correlation and regression, testing hypotheses, estimation of parameters. Emphasis will be placed on illustrations and application of these techniques to the social sciences and business. This course is not open to any student who has had a first statistics course in any department. Prerequisite: Mathematics 36 or 52 or the equivalent.

57. Quantitative Methods. (Also offered as Administrative Sciences 101 (POM).) Cr. 3. A course covering operations models in the field of management science. Topics such as Bayesian decision-making, inventory analysis, linear programming, queuing theory, and simulation are included. Prerequisites: Mathematics 54 and 36 or 52.

70. Precalculus. Cr. 1-3. A course for students who plan to take a calculus sequence. Topics include sets and numbers; relations and functions; trigonometric functions; exponential and logarithmic functions. (Offered in Summer Session upon sufficient demand).

71. Analytic Geometry and Calculus I. Cr. 5. (See paragraph on Placement Examination). A first course in the calculus sequence designed for students who plan to major in mathematics, engineering, or a physical science. In contrast to Mathematics 75, time is devoted to the precalculus aspects of the material and to comprehensive treatment of trigonometric functions. Topics include an extensive review of precalculus mathematics (set theory, the real number system, inequalities, absolute value, elementary functions and their graphs); limits, continuity, and derivatives; applications of the derivative; an introduction to the theory of the integral. (It is recommended that students take a computer programming course concurrently).

72. Analytic Geometry and Calculus II. Cr. 5. A continuation of Mathematics 71. Topics include techniques of integration; applications of the definite integral; exponential, logarithmic, and inverse trigonometric functions; indeterminate forms and improper integrals; sequences and series. Prerequisites: Mathematics 71 or 75 and some computer programming experience at Valparaiso University.

*****75. Calculus I.** Cr. 4. (See paragraph on Placement Examination). A first course in the calculus sequence designed for students who plan to major in mathematics, engineering, or a physical science. Topics include a brief review of precalculus mathematics (set theory, the real number system, inequalities, absolute value, algebraic and trigonometric functions); limits, continuity and derivatives; applications of the derivative; an introduction to the theory of the integral; techniques of integration. (It is recommended that students take a computer programming course concurrently).

76. Calculus II. Cr. 4. A continuation of Mathematics 75. Topics include applications of the definite integral; additional techniques of integration; exponential, logarithmic and inverse trigonometric functions; indeterminate forms and improper integrals; sequences and series. Prerequisites: Mathematics 75 and some computer programming experience at Valparaiso University.

77. Calculus III. Cr. 4. A continuation of Mathematics 72 and 76. Topics include conic sections; vector algebra; space curves; calculus of functions of several variables; multiple integration; calculus of vector fields. Prerequisite: Mathematics 72 or 76.

81. Topics in Mathematics I. Cr. 1. A course designed for students who plan to major in mathematics, engineering, or a physical science. Topics in finite mathematics will be studied. Prerequisite: concurrent enrollment in Mathematics 75 or consent of the instructor.

82. Topics in Mathematics II. Cr. 1. A course designed for students who plan to major in mathematics, engineering, or a physical science. Topics in computer applications or problem solving techniques will be studied. Prerequisite: concurrent enrollment in Mathematics 76 or consent of the instructor.

****Credit for Mathematics 54 may be earned through the College Level Examination Program (CLEP) subject examination in Statistics.**

*****Credit for Mathematics 75 may be earned through the College Level Examination Program (CLEP) subject examination in Introductory Calculus.**

102. Linear Algebra with Differential Equations. Cr. 3-4. Matrices and systems of linear equations; vector spaces and linear transformations; eigenvalues and eigenvectors; similarity and the minimal polynomial; main topics from elementary and linear differential equations. Prerequisite: Mathematics 52 or 72 or 76.

104. Differential Equations with Linear Algebra. Cr. 4. Elementary and linear differential equations; applications of differential equations; matrices and systems of linear equations; eigenvalues and eigenvectors; introduction to systems of linear differential equations. Prerequisite: Mathematics 52 or 72 or 76.

107. Differential Equations with LaPlace Transforms. Cr. 3. LaPlace transforms; series solutions including the method of Frobenius; phase plane analysis and stability for linear systems; other related topics. Prerequisites: Mathematics 77 and 102 (4 credit version) or 104.

112. Discrete Mathematical Structures. Cr. 3. An introduction to discrete structures and their applications to computing. Topics include logic; set theory; graph theory; groups and semigroups; lattices and Boolean algebra. Prerequisite: Mathematics 52 or 72 or 76. (First offered in 1982).

114. Abstract Algebra I. Cr. 4. This course provides an introduction to modern abstract algebra. Topics include: relations, operations, and set algebra; congruences and number systems, properties of groups, rings and fields. Prerequisite: Mathematics 52 or 72 or 76.

132. Introduction to Operations Research. Cr. 3. A survey of deterministic and probabilistic models used in Operations Research and Management Science. Topics include linear programming, inventory models, networks, queues, Markov chains, dynamic programming and simulation. Prerequisites: Mathematics 102 or 104 and 54 or 145. (Offered upon sufficient demand.)

137. Numerical Methods. Cr. 3. The analysis and implementation of basic numerical techniques: matrix methods for the solution of systems of equations, interpolating polynomials, finite differences, numerical differentiation and integration, numerical solution of differential equations, zeros of non-linear equations and error analysis. Students are expected to solve problems using a digital computer. Prerequisites: Mathematics 77 and either 102 or 104 and proficiency in an algorithmic computer language. (Offered upon sufficient demand.)

139. Applied Algebra. Cr. 3. A survey of algebraic structures from the perspective of computational mathematics. Topics include graphs; semi-groups; groups; Boolean algebras; lattices; rings and fields; combinatorics. Prerequisite: Mathematics 52 or 72 or 76. (Offered upon sufficient demand.)

145. Probability and Statistics. Cr. 3-4. An introduction to probability and statistics, including probability spaces, random variables, classical discrete and continuous probability distributions, correlation and regression, the Central Limit Theorem, and elementary applications of these topics to statistical inference. Prerequisite: Mathematics 77.

146. Mathematical Statistics. Cr. 3. A continuation of Mathematics 145. New topics include sampling theory, estimation, tests of hypotheses, analysis of variance, and non-parametric statistics. Prerequisite: Mathematics 145. (Offered upon sufficient demand.)

154. Elements of Geometry. Cr. 4. Logic, axiom systems, and models; consistency, independence, and completeness; consideration of the foundations of Euclidean geometry; incidence, separation, congruence; an introduction to non-Euclidean geometry; topics from projective geometry. Prerequisite: Mathematics 36 or 52 or the equivalent.

163. Mathematical Models in the Life and Social Sciences. Cr. 3. Topics will be chosen according to the interests of the class. These may include utility and measurement; graph theory; game theory; learning models; models of growth processes; simulation. Prerequisites: A statistics course and one of the following: 36 or 52 or 72 or 76. (Offered upon sufficient demand.)

166. History of Mathematics. Cr. 3. A survey of the development of mathematics from the earliest time to the present. Special emphasis on topics in geometry, algebra, and elementary calculus which are related to secondary school mathematics. This course may not be counted toward a minor in mathematics. Prerequisite: Mathematics 36 or 52 or the equivalent. (Given in alternate years. Offered in 1981-1982.)

177. Analysis. Cr. 4. Differentiation and convergence in real n -space; implicit function theorems; topology of the real line and metric spaces; theory of the integral; multiple integration and the Jacobian; uniform convergence. Prerequisite: Mathematics 77.

182. Introduction to Complex Variables. Cr. 3. Analytic functions; derivatives; power and Laurent series; integrals; residues; conformal mapping; complex inversion formula for the LaPlace transform; applications to partial differential equations. Prerequisite: Mathematics 104 or 107. (Offered upon sufficient demand.)

184. Applied Mathematics. Cr. 4. Fourier series and orthogonal functions, Bessel and Gamma functions. Sturm-Liouville systems, initial and boundary value problems involving partial differential equations, LaPlace transforms, and other selected topics. Prerequisite: Mathematics 107.

186. Vector and Tensor Analysis. Cr. 2-3. Topics include curvilinear coordinates, divergence, curl, line and surface integration, vector integration theorems, cartesian tensors. Prerequisite: Mathematics 77. (Offered upon sufficient demand.)

189. Topics in Mathematics. Cr. 3. An advanced course for mathematics majors. The topic studied, which may change from year to year, will ordinarily be one of the following: number theory, advanced abstract algebra, differential geometry, partial differential equations, measure and integration or functional analysis. This course may be repeated for credit. Prerequisite: consent of the chairperson of the department. Specific course requirements will depend on the content. (Offered upon sufficient demand.)

191. The Teaching of Mathematics. Cr. 2. (See Education 191.) A study of the methods of teaching mathematics in secondary schools. Prerequisite: admission to Supervised Teaching. This course may not be counted toward a major or a minor in mathematics.

193. Mathematics Colloquium. Cr. 0. Students are required to attend the sessions of Mathematics 194 and participate in the discussion of topics presented by faculty and students. Prerequisites: junior standing and Mathematics 102 or 104. S/U grade.

194. Mathematics Colloquium. Cr. 1. Student presentation of selected topics in mathematics arising from journal reading and research in special problems. Prerequisite: Mathematics 193.

195. Readings in Mathematics. Cr. 1-3. Students study advanced topics in mathematics under the supervision of a faculty member. Written work is required. Prerequisite: consent of the chairperson of the department.

196. Independent Study in Mathematics. Cr. 3. Each student must undertake a research problem in mathematics under the direction of a faculty member. Written and oral reports are required. Prerequisite: consent of the chairperson of the department.

COMPUTER SCIENCE.

A major in computer science will be available for freshmen entering in the Fall Semester 1981.

Major. A minimum of 28 credits in computer science. No more than 6 credits from courses numbered below 80 may be counted in the 28 credits. Courses must include 38 or 48, 86, 87, 91, 116, 118, and 129.

Majors must complete the following Mathematics courses: Calculus (Mathematics 52 or 72 or 76), Probability and Statistics (e.g., Mathematics 54 or 145), Linear Algebra (Mathematics 102 or 104) and Discrete Structures (Mathematics 112).

Computer Science majors should elect German or French to satisfy the foreign language requirement of the College of Arts and Sciences.

A student planning to major in computer science should begin both computer science and mathematics in the Freshman year.

Minor. Two minors are offered.

A Computer Science minor consists of a minimum of 15 credits in computer science. Courses must include 38 or 48, 86, 91, and one additional course numbered over 80. In addition, the student must have work in mathematics equivalent to at least Mathematics 52 and 54.

An Information Systems minor consists of a minimum of 15 credits in computer science. Courses must include 38 or 48, 64, 66, and one course numbered over 80. In addition, the student must complete one course in accounting and work in mathematics equivalent to at least Mathematics 36. It is also recommended that the student take one course in management.

A student who plans to major in Computer Science or minor in either Computer Science or Information Systems should take as his/her first two courses either Computer Science 37 and 38, or Computer Science 47 and 48, or General Engineering 20 and Computer Science 48.

Undergraduate Credit.

Note: A student may use 4 credits from any one of the following six course combinations toward the Natural Science and Mathematics requirement for graduation in the College of Arts and Sciences: Computer Science 17 and 21, or 17 and 22, or 37 and 25, or 47 and 23, or 37 and 38, or 47 and 48. At most, 4 credits from the courses 21-29 may be applied toward degree requirements.

17. (Formerly 60). Computers and Their Uses. Cr. 3. A survey of computers, including their uses, limitations and effect on society. Specific topics include computer hardware, programming languages with emphasis on BASIC, text processing, and program packages. This course is not a prerequisite to any other computer science course. Not open to students who have completed Computer Science 37, 47, or General Engineering 20.

21. BASIC Programming. Cr. 1-2. (Normally 2 credits. A one credit version for science majors will be offered as needed). An introduction to computer problem-solving techniques using the BASIC language. Not open to students who have completed a programming course at Valparaiso University. Prerequisite: proficiency in algebra.

22. FORTRAN Programming. Cr. 1-2. (Normally 2 credits. A one credit version for science majors will be offered as needed). An introduction to computer problem-solving techniques using the FORTRAN language. Not open to students who have completed a programming course at Valparaiso University. Prerequisite: proficiency in algebra.

23. The BASIC Language. 7 weeks. Cr. 1. An introduction to BASIC as a second programming language. Not open to students who have completed Computer Science 21 or 37. Prerequisite: Computer Science 22, 47, or General Engineering 20.

24. BASIC Programming II. 7 weeks. Cr. 1. A continuation of Computer Science 23 with emphasis on files, program segmentation, debugging techniques and compilation. Prerequisite: Computer Science 23 or the equivalent. (Not offered after Fall, 1981).

25. The FORTRAN Language. 7 weeks. Cr. 1. An introduction to FORTRAN as a second programming language. Not open to students who have completed Computer Science 22, 47, or General Engineering 20. Prerequisite: Computer Science 21 or 37.

26. FORTRAN Programming II. 7 weeks. Cr. 1. A continuation of Computer Science 25 with emphasis on formatted I/O, program segmentation, character manipulation and files. Prerequisite: Computer Science 25 or the equivalent. (Not offered after Fall, 1981).

28 Topics in Computer Programming. 7 weeks. Cr. 1. The content of this course may change from semester to semester, but will ordinarily be a study of a computer programming language not covered in other Computer Science courses. This course may be repeated for credit. Prerequisite: usually equivalent to Computer Science 37 or 47. Specific requirements will depend on course content.

29. System Operation and Management. 7 weeks. Cr. 1. This course includes both training in the operation of a computer system and an introduction to the management of a time-shared system. Prerequisites: Computer Science 24 or 26 and consent of the instructor.

37. Algorithms and BASIC Programming I. Cr. 3. A fundamental course in algorithm development and problem-solving and an introduction to the use of a computer system with special emphasis on the programming constructs in the language BASIC. In order to solve problems in a computer environment the student will design elementary algorithms and write,

debug, and document BASIC programs for the implementation of those algorithms. Not open to students who have had Computer Science 62. Prerequisite: concurrent registration in Mathematics 35, 51, 71, or 75.

38. Algorithms and BASIC Programming II. Cr. 3. A continuation of Computer Science 37, with emphasis on the development of discipline in program design and style, especially for intermediate size programs. Includes algorithms for searching, sorting and string processing and the use of data structures. In addition to writing programs in BASIC, the student will learn programming constructs in the language PASCAL. Prerequisites: Computer Science 37 and Mathematics 35, 51, 71, or 75.

47. Algorithms and FORTRAN Programming I. (Also offered as General Engineering 20). Cr. 3. A fundamental course in algorithm development and problem-solving and an introduction to the use of a computer system with special emphasis on the programming constructs of the language FORTRAN IV. In order to solve problems in a computer environment, the student will design elementary algorithms and write, debug, and document FORTRAN programs for the implementation of those algorithms. Not open to students who have had Computer Science 62. Prerequisite: concurrent registration in Mathematics 51 or 72 or 76.

48. Algorithms and FORTRAN Programming II. Cr. 3. A continuation of Computer Science 47 or General Engineering 20, with emphasis on the development of discipline in program design and style, especially for intermediate size programs. Includes algorithms for searching, sorting and string processing and the use of data structures. In addition to writing programs in FORTRAN the student will learn programming constructs in the language PASCAL. Prerequisites: Computer Science 47 or General Engineering 20, and Mathematics 51, 71, or 75.

64. File Processing Using COBOL. Cr. 3. This course introduces concepts and techniques for the organization and manipulation of files through the study of the COBOL language. Prerequisite: Computer Science 37 or 47 or General Engineering 20.

66. Analysis and Design of Business Systems. Cr. 3. Models of data processing systems, data collection and organization, cost analysis, aspects of system design, file and data base design, documentation, testing, implementation and maintenance, security and control, management considerations. Prerequisites: Computer Science 64 and either 38 or 48. (Offered upon sufficient demand. Not offered before 1982-1983).

86. (Formerly 124). Computer Architecture and Programming. Cr. 3. Fundamentals of the structure of digital computers and an introduction to assembly language programming. Topics include machine instructions, data representation, addressing techniques and program segmentation and linkage. Prerequisite: Computer Science 38 or 48.

87. Digital System Design. Cr. 3. (Also offered as Electrical Engineering 143). Fundamentals of logic design, information transfer and control in a digital system, organization and structure of hardware components of digital computers. Prerequisite: Computer Science 38 or 48.

91. File Structures and Algorithms. Cr. 3. Organization and manipulation of sequential, keyed-sequential, and random access files. External search, sort and merge algorithms. File structures in data base management systems. Prerequisite: Computer Science 38 or 48. (Offered for the first time in 1982).

94. Simulation and Modeling. Cr. 3. An introduction to computer simulation of mathematical models of discrete and continuous phenomena. Some standard simulations will be examined, others will be implemented using a simulation language. Prerequisites: Computer Science 38 or 48, Mathematics 36 or the equivalent, and a course in probability and statistics. (Offered upon sufficient demand).

116. Organization of Programming Languages. Cr. 3. Formal language constructs as exhibited in a variety of programming languages. Topics include syntax and basic characteristics of grammars, parsing, data types and structures, run-time considerations. Prerequisite: Computer Science 91. (First offered in 1984).

117. Operating Systems and Systems Programming. Cr. 3. Introduction to the concepts of operating system programming and inter-relationships between the operating system and machine architecture. Topics include procedures, processes, resource management and interrupt-driven processing. Students will program in assembly language. Prerequisites: Computer Science 86 and 91. (Offered upon sufficient demand. Not offered before 1983).

118. Software Design and Development. Cr. 3. The specification, design, implementation, documentation and testing of software systems. Principles of project management. Case

studies. Prerequisites: Computer Science 91 and a computer science course numbered over 100. (Not offered before 1983).

121. Data Structures. Cr. 3. The design and manipulation of data structures. The structures studied include arrays, stacks, linear lists, queues, graphs, trees and multi-linked structures. Some of the manipulation techniques to be examined are searching, sorting, recursion and garbage collection. Prerequisite: Computer Science 62 or 64. (Not offered after Fall, 1981).

127. Elementary Systems Programming. Cr. 3. A survey of algorithmic languages. Language selection and interfacing for applications programming. Lexical and syntactic analysis of formal languages. Topics in system programming. Prerequisite: Computer Science 86. (Not offered after Fall, 1982).

128. Independent Study in Computer Science. Cr. 2. The student is expected to exhibit ability in computer usage by defining a suitable computer application, developing necessary software using appropriate techniques, and preparing documentation for the use and support of the completed system. Prerequisites: Computer Science 127 and consent of the instructor. (Not offered after Fall, 1983).

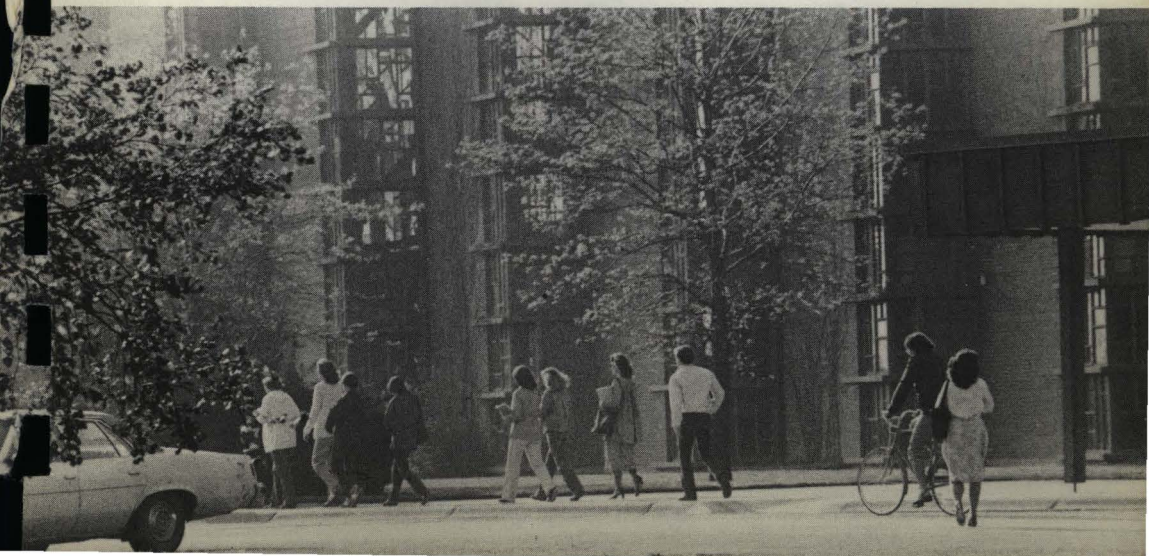
129. Seminar in Computer Science. Cr. 1. Student-staff presentation of selected topics in computer science arising from journal reading and research. Prerequisite: consent of the instructor. (Offered upon sufficient demand.)

137. Numerical Methods. Cr. 3. (Also offered as Mathematics 137). The analysis and implementation of basic numerical techniques: matrix methods for the solution of systems of equations, interpolating polynomials, finite differences, numerical differentiation and integration, numerical solution of differential equations, zeros of non-linear equations, and error analysis. Students are expected to solve problems using a digital computer. Prerequisites: Mathematics 77 and either 102 or 104 and proficiency in an algorithmic computer language. (Offered upon sufficient demand).

156. Theory of Programming Languages. Cr. 3. Concepts used on the translation of programming languages and the design of computers. Topics include grammars, scanners and symbol table manipulation, parsers and pushdown automata, and techniques of automatic code generation and improvement. Applications may include general purpose languages as well as special purpose languages such as data base definition and inquiry languages. Prerequisites: Computer Science 86, 116 and Mathematics 112. (Offered upon sufficient demand. Not offered before 1985).

157. Principles of Systems Programming. Cr. 3. Problems and techniques associated with programming in systems with shared resources, e.g., operating systems and data base management systems. Topics include concurrent processes, communication and deadlock, queueing and scheduling, resource protection and access. Prerequisites: Computer Science 117 and a course in probability and statistics. (Offered upon sufficient demand. Not offered before 1984).

158. Senior Project. Cr. 3. Prerequisites: Computer Science 118 and a proposal approved by the chairperson of the department. (Not offered before 1984).



MUSIC

Professors

William F. Eifrig, Jr.
D.M.A., University of Michigan
Philip K. Gehring
Ph.D., Syracuse University
Newman W. Powell
Ph.D., Stanford University
Frederick H. Telschow (chairman)
D.M.A., Eastman School of Music
Richard W. Wienhorst
Ph.D., Eastman School of Music

Associate Professors

Eldon W. Balko
M.M., Michigan State University
Norman L. Hannewald
Ed.D., Indiana University
William H. Kroeger
M.M., Chicago Musical College
Joseph F. McCall
M.M., Peabody Conservatory of Music

Assistant Professors

Bethyne S. Emery
M.M., University of Michigan
Marcia A. Lewis
D.M., Northwestern University
Keith A. Paulson-Thorp
D.M.A., University of Illinois

Instructor

James M. Klein
M.M., University of Texas, Austin

Distinguished Service Professor Emeritus

Theodore Hoelty-Nickel

Assistant Professor Emerita

Kathryn E. Aller

Depending on individual interests, students may be admitted to a curriculum which leads to one of three degrees: Bachelor of Arts, Bachelor of Music, or Bachelor of Music Education. A Music Merchandising program is also available; for information on this program, see page 116. A faculty of experienced musician-teachers who excel in their fields, a lively group of students, and a large collection of instruments, scores, books, and recordings provide the stimuli and resources for a student to work toward realizing his/her full potential.

Career opportunities in music are many and varied. Teaching in elementary, junior high, or high schools and at the college level provide most of the openings for well-qualified musician-educators. Church music positions are sometimes combined with teaching in schools or with private music instruction. Other careers are available in music merchandising, music libraries, music administration, and the technical and electronic areas related to music. Music publishing and the entertainment fields offer interesting employment possibilities as well.

Admission. A student who wishes to enroll in any of the degree programs in music must meet all the general requirements for admission to the College of Arts and Sciences (see page 24 of this bulletin). In addition, he/she must pass an entrance test in musicianship and applied music. Information concerning this test, which will be given prior to matriculation, may be obtained from the chairperson of the department.

Approval of Schedules. All candidates for the Bachelor of Arts degree taking a major or a minor in this department and all candidates for the Bachelor of Music and the Bachelor of Music Education degrees must have their schedules approved by the chairperson of the department at the beginning of each semester.

Departmental Requirements. Regulations concerning student performance, concert attendance, ensemble participation, and other matters which concern majors and minors within the department are given in the Department of Music Student Handbook, available in the departmental office.

Special Seminars and Workshops. Visiting artists and lecturers are brought to the campus from time to time to conduct seminars and workshops in various fields of music. The Church Music Seminar, the High School Choral Festival, the High School String Festival, the Wind Clinic, and other such events give added breadth to the student's musical education through his/her observation of a skilled artist or conductor at work.

Bachelor of Arts. Many students come to college with interests and abilities in several areas of study. This degree program is designed to make it possible for a student to earn a basic major in music and another major or a minor in an additional discipline.

A candidate for this degree with a major in music must meet all the general requirements for the degree.

Major. A minimum of 31 credits in music. Courses must include Music 9, 10, 13, 14, 63 and two from Music 102, 103, 104 and 4 credits in the student's principal instrument and 6 credits of ensemble. The student must pass all the performance tests set for him/her by this department.

Minor. A minimum of 16 credits in music constitutes a minor. Courses must include Music 9, 10, 13, 14 and 4 credits of applied music. In addition, the student must pass all performance tests set for him/her by this department.

Bachelor of Music. To be eligible for this degree, a student must complete the required curriculum for the major area of concentration. In addition, he/she must pass all performance tests set for him/her by this department. He/she must earn a total of 134 credit hours for a major in church music and 128 credit hours for the remaining programs. He/she must have a standing of two (2.00). The curricula are outlined below.

Two areas of concentration are offered the student majoring in church music: organ and voice. Each student will be expected, however, to acquire sufficient skill in organ performance and choral directing to assume a position as a qualified parish musician.

A. GENERAL EDUCATION REQUIREMENTS:

	Credits
1. Freshman Studies	
Introduction to Christian Theology	3
Exposition and Argument	3
History of Western Thought and Society	3
Freshman Seminar	3
	<hr/> 12
2. Academic Area Studies	
Theology	6
Literature (English 25)	4
Foreign Language (course 20 or 30)	4-8
Social Analysis	6
Natural Science and Mathematics	4
Physical Education	2
	<hr/> 26-30

3. Academic Area Studies Option (choose 1 course)

Non-Western or Third World Studies	0-3
Historical and Philosophical Studies	3
	0-3

4. Integrative Studies

University Course	3
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Total 41-48

B. MUSIC REQUIREMENTS:

1. Core Curriculum (for all students):

Basic Musicianship 9, 10, 11	9
Music Theory 13, 14, 63, 64	12
History and Literature of Music 102, 103, 104	9†
Basic Conducting 113	2
Music Theory 135, 136	6
Ensemble	8
	46

2. Other Requirements:

Program:	Church Music		History & Literature	Composition
Principal Instrument:	Organ	Voice		
Orchestration 112	—	—	2	2
Choral Conducting 114	2	2	—	—
Liturgical Organ Playing 115	2	2	—	—
Pro-Seminar 121 or 123	—	—	2-3	—
Hymnology 171	2	2	—	—
History of Church Music 174	2	2	—	—
Independent Study 194	—	—	3	—
Composition	—	—	—	12
Piano (or harpsichord)	4	0	—	12
Organ (or harpsichord)	24	8	20*	—
Voice (may include Voice Class 39)	4	24	—	—
Instruments	—	—	—	2
	40	40	27	28
C. ELECTIVES	3	3	10**	9
Total required for graduation	134	134	128	128

Program:	Applied Music			
Principal Instrument:	Organ or Harpsichord	Piano	Voice	Orchestral Instrument
Choral Conducting 114	—	—	2	—
Language Diction 110, 111	—	—	2	—
Pro-Seminar in Pedagogy of Music 123.....	2	2	—	2
Piano (or harpsichord)	4	24	4	—

†After 1981-1982.

*Applied music must include at least eight credits in keyboard instruments and it must include a principal medium of at least eight credits.

**Recommended: a second foreign language, a course in non-Western studies.

Organ (or harpsichord)	24	—	—	—
Voice (may include Voice Class 39)	—	—	24	—
Principal orchestral instrument	—	—	—	24
	30	26	32	26
C. ELECTIVES	7	11	5	11
Total required for graduation	128	128	128	128

Bachelor of Music Education. To be eligible for this degree, a student must complete the curriculum described below. In addition, he/she must pass all performance tests set for him/her by this department. Four areas of concentration are offered the student majoring in music education: a vocal concentration, a general concentration, an instrumental concentration, and an area concentration. The area concentration is designed for students who wish to prepare themselves for teaching in both the vocal and instrumental fields. A student must earn a total of 134 credit hours if the area of concentration is vocal, general or instrumental, and he/she must earn a total of 138 credit hours to complete the area concentration. He/she must have a standing of two (2.00).

A. GENERAL EDUCATION REQUIREMENTS:

Credits

1. Freshman Studies

Introduction to Christian Theology	3
Exposition and Argument	3
History of Western Thought and Society	3
Freshman Seminar	3
	12

2. Academic Area Studies

Theology	6
Literature (English 25)	4
Social Analysis	3
Natural Science and Mathematics	8
	21

3. Academic Area Studies Option (choose 1 course)

Non-Western or Third World Studies	3
Historical and Philosophical Studies	3
	3

4. Additional Courses in the College of Arts and Sciences

General Psychology	3
Speech	3
	6

5. Integrative Studies

University Course	3
Total	45

B. PROFESSIONAL EDUCATION REQUIREMENTS:

Teaching Academic Subject Areas: Principles and General Methods 155	5
Foundations of Education 62	3
Orientation to Secondary Teaching 105	3
Psychological Foundations of Secondary Education 156	4

High School Music Methods 191	2
Reading in the Content Areas 174	3
Supervised Teaching 157	8
	<hr/> 28

C. MUSIC REQUIREMENTS:

1. Core Curriculum (for all majors)

Basic Musicianship 9, 10, 11	9
Music Theory 13, 14, 63, 64	12
History and Literature of Music 102, 103, 104	9*
Basic Conducting 113	2
Ensemble	8
	<hr/> 40

2. Other Requirements:

	Licensing Areas			
	Choral	General	Instrumental	Area
Principal Performing Area	8*-12	8*-12	8*-12	8*-12
(Instrument or Voice)				
*only if piano or organ is the principal.				
Choral Conducting 114	2	2	—	2
Instrumental Conducting 125	—	or 2	2	or 2
Orchestration 112	—	—	2	2
Elementary School Music Methods 109	3	3	—	3
Jr. Hi/Middle School General Music 105..	—	2	—	2
Secondary Instruments or Voice*	1-3	1-3	4	2-4
*must include Voice Class 39 if Voice				
is the principal performing area.				
Electives (may not include principal				
performing area)	3-5	1-3	1-5	3-5
	<hr/> 21	<hr/> 21	<hr/> 21	<hr/> 25
Total for graduation	134	134	134	138

Master of Music. This program is intended for performers, music teachers in the public and parochial schools, studio teachers, church musicians, and others who wish to continue their professional studies at the graduate level. An appropriate Bachelor's degree in music is a prerequisite.

In addition to the admission procedures of the Graduate Division, students must pass an audition in their principal performing medium and submit two letters of recommendation, addressed to the Department of Music.

Students whose undergraduate degree is not that specified as prerequisite to each of the concentrations may be required to take certain undergraduate courses, which will not apply to the M. M. degree.

For further information, consult the Graduate Division bulletin.

Master of Arts in Liberal Studies. Within this framework, the Department of Music offers a concentration in the field of music. While the details of the program for a music concentration are worked out in a conference between the student and the adviser, guidelines and requirements may be found in the Graduate Division bulletin.

*After 1981-1982.

Undergraduate and Graduate Credit.

THEORY, HISTORY, AND METHODS.

- 1. Introduction to Music.** Cr. 3. A study of the materials of music and their use in the basic forms and styles of musical art.
- 9. Basic Musicianship.** 3+1, Cr. 3. A practical course in which basic musicianship is developed through work at the keyboard, sight singing, dictation, and guided listening. The course is usually taken concurrently with Music 13.
- 10. Basic Musicianship.** 3+1, Cr. 3. A continuation of Music 9. Prerequisite: Music 9. Usually concurrent with Music 14.
- 11. Basic Musicianship.** 3+1, Cr. 3. A continuation of Music 10. Prerequisite: Music 10. Usually concurrent with Music 63.
- 13. Music Theory.** Cr. 3. A course in the fundamentals of music which includes creative writing, counterpoint, part writing, form and analysis, instrumentation, and orchestration.
- 14. Music Theory.** Cr. 3. A continuation of Music 13. Prerequisite: Music 13.
- 63. Music Theory.** Cr. 3. A continuation of Music 14 with special emphasis on the harmonic developments of the Classic and Romantic periods. Prerequisite: Music 14.
- 64. Music Theory.** Cr. 3. A continuation of Music 63 with special emphasis on music of the twentieth century as well as tonal counterpoint. Prerequisite: Music 63.
- 102. History and Literature of Music.** Cr. 3. A study of music and musical thought from the early 19th century to the present. Prerequisites: Music 14 and Music 10.
- 103. History and Literature of Music.** 3+3, Cr. 4. The development of musical thought and literature from the ancient world through the early Christian era, the Middle Ages, and the Renaissance. Prerequisites: Music 63 and Music 10.
- 104. History and Literature of Music.** 3+3, Cr. 4. The development of musical thought and literature from the Renaissance to the 19th Century. Prerequisites: Music 63 and Music 10.
- 105. Junior High/Middle School General Music.** Cr. 2. A study of materials, methods of procedure, supervision, and psychological and physical aspects of teaching general music in the junior high school. Field trips are a requirement of this course. (Offered in 1981-1982 and in alternate years thereafter.)
- 107. Music Methods for The Elementary Teacher.** Cr. 3. A study of materials, methods, and techniques of general classroom music for the primary grades. This course is open only to elementary education majors and may not be counted toward a major or minor in this department.
- 109. Elementary School Music Methods.** Cr. 3. A study of materials, methods of procedure and supervision for primary grades. Field trips are a requirement of this course. This course may not be counted toward a major or minor in this department. Prerequisite: Music 14.
- 110. Language Diction.** Cr. 1. This course gives the student a practical knowledge of pronunciation used in singing the four principal languages in music literature: Italian (Latin), French, German, and English. (Offered in 1982-1983 and in alternate years thereafter.)
- 111. Language Diction.** Cr. 1. A continuation of Music 110. Prerequisite: Music 110. (Offered in 1982-1983 and in alternate years thereafter.)
- 112. Orchestration.** Cr. 2. The technique of scoring for orchestra and band. Prerequisite: Music 14. (Offered in 1982-1983 and in alternate years thereafter.)
- 113. Basic Conducting.** Cr. 2. An introduction to conducting including a study of score reading, beat patterns, acoustics, and interpretive principles. Prerequisite: Music 14 or consent of the instructor.
- 114. Choral Conducting.** Cr. 2. A continuation of Music 113. Development of choral materials and techniques. Prerequisite: Music 113.
- 115 (215). Liturgical Organ Playing.** Cr. 2. A practical course in playing hymns and chants, accompanying, realization of figured bass, score reading, and improvising in small forms. The historic and present-day role of the organ in the liturgy will be discussed. Prerequisites: 3

years of organ study and Music 14, or permission of instructor. (Offered in 1981-1982 and alternate years thereafter.)

120 (Formerly 168). Music in History. Cr. 3. A study of music as a cultural expression in the history of Western civilization, the major stylistic traditions of musical art.

121 (221). Pro-Seminar in Music. Cr. 2-3. An intensive study of a limited area in the history or theory of music. This course may be repeated for credit. Prerequisite: consent of the chairperson of the department. (Offered in 1981-1982 and in alternate years thereafter.)

123 (223). Pro-Seminar in Pedagogy of Music. Cr. 2. A consideration of the problems of teaching basic musicianship at all levels. Special attention will be given to the adapting of basic principles to the media of most interest to the members of the pro-seminar. Prerequisite: consent of the chairperson of the department. (Offered in 1982-1983 and in alternate years thereafter.)

125 (225). Instrumental Conducting. Cr. 2. A study of instrumental scores, conducting techniques, and materials. Prerequisite: Music 113.

126 (226). Advanced Instrumental Conducting. Cr. 2. A continuation of Music 125. Prerequisite: Music 125 or the equivalent.

127 (227). Advanced Choral Conducting. Cr. 2. A course for school musicians and professional church musicians dealing with advanced problems in choral conducting. Prerequisite: Music 114 or the equivalent.

128 (228). Advanced Choral Conducting. Cr. 2. A continuation of Music 127. Prerequisite: Music 127 or the equivalent.

132 (232). Workshop in Music Education. Cr. 1-2. A study of current topics in music education in summer workshop sessions of one or two weeks.

135 (235). Music Theory. Cr. 3. A study of non-tonal counterpoint. Creative projects and analysis form an integral part of the course. Prerequisite: Music 64. (Offered in 1982-1983 and in alternate years thereafter.)

136 (236). Music Theory. Cr. 3. A study of 20th-century music techniques. Creative projects and analysis form an integral part of the course. Prerequisite: Music 64. (Offered in 1982-1983 and in alternate years thereafter.)

171 (271). Hymnology. Cr. 2. A study of the Christian hymn from its earliest sources to the present day. Prerequisites: junior standing and consent of the chairperson of the department. (Offered in 1981-1982 and in alternate years thereafter.)

174 (274). History of Church Music. Cr. 2. A study of the development of church music from the earliest history of the Church in the Old Testament to the present, with special emphasis on the period from Luther to Bach. Prerequisites: junior standing and consent of the chairperson of the department. (Offered in 1981-1982 and in alternate years thereafter.)

175. Music Merchandising. Cr. 3. The major objective of this course is to familiarize the student with basic information for successful music merchandising and to grasp and understand the place of music in our contemporary society. Areas and principles to be covered include retailing, publishing, manufacturing, performing and recording, and managing musical enterprises.

191. High School Music Methods. Cr. 2. (See Education 191.) Principles of planning, organizing, and teaching the various kinds of music courses and activities in middle school/junior high and high school. Prerequisite: admission to Supervised Teaching.

194. Independent Study in Music. Cr. 1-3. A course of study arranged by the student with the consent of and under the supervision of a faculty adviser. The study will result in a written essay on a topic approved by the adviser. Prerequisites: Music 64 and 104.

Applied Music.

Note: Non-music majors who are candidates for degrees in the College of Arts and Sciences are restricted to 16 credits toward graduation in applied music, of which no more than 4 may be in ensemble music.

A. PRIVATE INSTRUCTION.*

One semester hour of credit provides one-half hour per week of private instruction and presumes at least three hours of practice per week for a period of one semester. Two semester hours of credit provides one-half hour per week of private instruction and presumes at least six hours of practice per week for a period of one semester. Three semester hours of credit provides forty-five minutes of private instruction per week and presumes at least nine hours of practice per week. Private instruction is supplemented by repertoire classes in the various media that meet one 50-minute class period per week.

Voice	Viola	Saxophone
Piano and Jazz Piano	Violoncello	Trumpet
Harp	Contrabass	French horn
Harpsichord (by audition only)	Classical Guitar	Trombone
Organ (by audition only)	Flute	Baritone horn
Organ Improvisation	Oboe	Tuba
(by audition only)	Clarinet	Percussion
Violin	Bassoon	Electronic music

Composition. A program of study dealing creatively with the problems of musical form. Prerequisites: consent of the instructor and the chairperson of the department.

Undergraduate Credit.

100. Cr. 1-3. Open to all students in the University, including the Evening Division. Students in any medium should usually register for only two credits. Registration for three credits is available only to candidates in the Bachelor of Music program in their principal applied music medium.

B. CLASS INSTRUCTION.

Undergraduate Credit.

31. Stringed Instrument Class (violin, viola). 0+2, Cr. 1. Violin and viola are studied for the purpose of giving the student a fundamental playing and teaching knowledge of the instruments.

32. Stringed Instrument Class (cello, bass viol). 0+2, Cr. 1. Cello and string bass are studied for the purpose of giving the student a fundamental playing and teaching knowledge of the instruments.

33. Single-Reed Instrument and Flute Class. 0+2, Cr. 1. Clarinet, saxophone, and flute are studied for the purpose of giving the student a fundamental playing and teaching knowledge of the instruments.

34. Double-Reed Instrument Class. 0+2, Cr. 1. Oboe and bassoon are studied for the purpose of giving the student a fundamental playing and teaching knowledge of the instruments.

35. Brass Instrument Class. 0+2, Cr. 1. Trumpet, French horn, trombone, baritone horn, and tuba are studied for the purpose of giving the student a fundamental playing and teaching knowledge of the instruments.

36. Guitar Class. 0+2, Cr. 1. Guitar is studied for the purpose of giving the student the basic playing skills necessary for the use of the guitar in classroom music teaching.

37. Percussion Instrument Class. 0+2, Cr. 1. Percussion instruments are studied for the purpose of giving the student a fundamental playing and teaching knowledge of the instruments.

39. Voice Class. 0+2, Cr. 1. This course is designed to give the student a fundamental technical performing and teaching knowledge of the vocal instrument.

C. INSTRUCTION IN ENSEMBLE MUSIC.

Note: Non-music majors who are candidates for degrees in the College of Arts and Sciences are restricted to 16 credits toward graduation in applied music, of which no more than 4 may be in ensemble music.

Instruction in one of the following ensembles for a period of one semester gives one semester hour of credit. If a student has earned eight credits in ensemble music, any additional enrollments are graded on a Satisfactory/Unsatisfactory basis.

*See page 218 for appropriate fees.

All ensemble courses are available for graduate credit on either the 200 or 300 level. Enrollment is limited to students who have specialized training and background to participate in the ensemble in some special capacity (such as assistant conductor, sectional leader, or project director) to be determined by the instructor of the ensemble and with approval of the chairperson of the department.

Undergraduate and Graduate Credit.

150, 250, 350. Choir. Chapel Choir, Concert Choir, Kantorei, Treble Choir, and VU Show Revue. Admission by audition only. Also Choral Society; audition not required.

152, 252, 352. University Band. Admission by audition only.

154, 254, 354. University Symphony Orchestra. Admission by audition only.

156, 256, 356. Opera Workshop. Admission by audition only.

158, 258, 358. Chamber Music. Admission by approval of the chairperson of the department. This credit may be earned by participation in the Collegium Musicum.

MUSIC MERCHANDISING

Hannewald
Administrative Committee: Associate Professor Hannewald (Music), Chairman; Professor Wienhorst (Music); Associate Professor Listman (Administrative Sciences).

Students completing the Program in Music Merchandising will have fulfilled concentration requirements for the Bachelor of Arts degree under the Program Option.

Objectives. In recent years many individuals trained in music have found it desirable and expedient to seek employment in the music industry (merchandising, manufacturing, printing and publishing, etc.). The music industry has become increasingly interested in people trained in handling the needs of that segment of the musical world. Several recent graduates of music programs at Valparaiso University are employed in these areas and have encouraged us to implement a degree program designed to equip people with background to assume responsible roles in the industry.

A program in music merchandising, developing from the strong liberal arts foundation to which we here at Valparaiso are committed, will be a viable program option for our undergraduate students. A sizable number of prospective students have indicated an interest in such a program. We therefore believe that there is a clientele for a sound academic program combining a major in music and an appropriate business component.

Possible career applications for students with a major in Music and the supplementary business component:

1. The publishing, distributing, and retailing of printed music.
2. The publishing, distributing, and retailing of books and magazines dealing with music (including textbooks, reference books, music appreciation books, journals dealing with scholarly articles, news and reviews, etc.).
3. The teaching of music, whether publicly or privately, in music schools run by stores, distributors, private interests, or individual teachers.

4. The field of performed music (live and recorded music played on radio and TV stations, motion pictures, musical stages, concert halls, opera houses, in recitals, in educational performances in schools, colleges, and religious institutions, CATV, and the new video cassettes).
5. The area of recorded music (including the making, distributing, and selling of recorded music in all form of disc and tape).
6. The music instrument industry (the manufacture, distribution, retailing, and servicing of musical instruments and accessories).
7. The musical reproducing instrument industry (the manufacture, distribution, and retailing of stereo disc and tape players and recorders, video recorders, and cartridge players and cassette systems for home, auto, etc.).
8. The promotion and management of non-commercial music (the work of the American Music Conference and related agencies in state and federal government making grants to the performing arts, and industrial sponsoring of musical events).

Requirements:

	Program Core	Credits
Music 9, 10	Basic Musicianship	6
Music 13, 14, 63	Music Theory	9
Music 102, 103, 104	History and Literature of Music (choose 2)	6
	Applied Music	4
	Ensemble Music	6
Music 175	Music Merchandising	3
		<hr/> 34
	Business Component	
Accounting 52	Financial Accounting	4
Economics 71	Principles of Economics—Micro	3
Adm. Sci. 101	GLM: Management of Organizations	3
Adm. Sci. 101	MKM: Marketing Management	3
	six credits from the following:	
Adm. Sci. 101	HRM: Human Resource Management	3
Adm. Sci. 131	MKM: Retailing	3
Adm. Sci. 132	MKM: Advertising	3
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PHILOSOPHY

Professors

Kenneth H. Klein

Ph.D., Harvard University

Richard W. Scheimann

Ph.D., The University of Chicago

Robert V. Schnabel

Ph.D., Fordham University

Associate Professor

John Leigh Smith (chairman)

Ph.D., University of Virginia

Courses in philosophy offer students the opportunity to examine the basic issues which arise in all fields of intellectual endeavor and also to explore the positions of the great thinkers of both Western and Eastern civilizations. These courses should help students to reflect on those concepts which significantly shape human life because of the key role they play in action, thought, and discourse. Such reflection is philosophical if it is analytical, critical, and evaluative. The study of philosophy tends to develop and sharpen the analytical and critical thinking of students, not only with respect to philosophy, but with respect to other disciplines as well.

Major. A minimum of 27 credits in philosophy. Courses must include Philosophy 3, 51, 53, and 127. The remainder of a student's study of philosophy will be selected in consultation with the chairperson of the department, taking into account one's total academic program and plan for the future. The department recommends specific plans of study for those preparing for entrance into law school, theological seminary, or graduate philosophy. Majors who are preparing to study philosophy in graduate school are advised to complete a minimum of 36 hours in philosophy. Recommended plans of study are available at the departmental office, Meier Hall 114.

Minor. A minimum of 15 credits in philosophy constitutes a minor. Courses must include Philosophy 3, 51, and any one of the following: 52, 53, 54.

Approval of Schedules. All students taking a major or a minor in the Department of Philosophy must have their schedules approved by the chairperson of the department at the beginning of each semester.

Prerequisites. Courses numbered under 100 have no prerequisites. Courses numbered over 100 have, as prerequisite, any one of the courses numbered under 100 or Philosophy 101 taken in Christ College or consent of the chairperson of the department. The department urges, but does not require, that majors and others planning to take 100-level courses take Logic (Philosophy 3) and at least one of the History of Philosophy courses (51, 52, 53, or 54) prior to taking upper division courses.

Undergraduate and Graduate Credit.

1. Introduction to Philosophy: Social Philosophy. Cr. 3. A philosophical introduction to problems of social thought and action. The course will emphasize the problem of relating one's individual moral values to those of society through a study of some of the major works in social philosophy.

2. Introduction to Philosophy: Fundamental Questions. Cr. 3. A general introduction to philosophy in which the most fundamental questions raised by both ordinary persons and philosophers are examined and explored. Some of the topics usually discussed are the nature of reality, the foundation of knowledge and values, the nature of humankind and the relationship between faith and reason.

3. Introduction to Philosophy: Logic. Cr. 3. An introduction to formal logic in which truth-functional logic and elementary quantification theory are the primary topics. The traditional logic of the syllogism will be studied as one part of contemporary logic. Some consideration will be given to the application of logic in the formal analysis of arguments.

51. History of Ancient Philosophy. Cr. 3. An approach to the philosophies of ancient Greece and Rome which emphasizes their systematic character and their current relevance. Primary documents will be read throughout.

52. History of Medieval Philosophy. Cr. 3. A tracing of basic themes in the great philosophies of the Western world from Plotinus to William of Ockham. Primary documents will be read throughout.

53. History of Early Modern Philosophy. Cr. 3. An introduction to basic themes in European philosophy from Hobbes through Hume. Primary documents will be read throughout.

54. Studies in the History of Modern Philosophy. Cr. 3. A study of one or more philosophical traditions in the 18th, 19th and 20th centuries beginning with Kant. Topics will be announced prior to preregistration and may include studies such as Kant and his interpreters. German and British idealism, positivism and the analytic tradition, or American philosophy. This course may be taken more than once if the topics are different.

55. Non-Western Philosophy. Cr. 3. An introduction to some themes in the great philosophies of the non-Western world. A major part of the semester will be devoted to the analysis of important documents.

90. (Formerly 168). Philosophy of Science. Cr. 3. A systematic approach to the philosophical problems involving the concepts, methodologies, and theories of physical and biological sciences, leading toward an interpretation of science.

112. (Formerly 168). Philosophy of Religion. Cr. 3. A philosophical analysis of some of the beliefs, concepts, and problems involved in one or more of the major religious traditions.

121. Metaphysics. Cr. 3. An examination of traditional and contemporary metaphysical topics, such as ontology, appearance and reality, persons, the mind-body problem, the analytic-synthetic distinction, the private-language problem.

123. Ethics. Cr. 3. A study of the most significant and influential ethical theories which have been advocated in the modern era with special emphasis given to the important problems which have been debated by ethicists such as the distinction between facts and values, the meaning of moral statements, and the nature of moral rules.

127. Theory of Knowledge. Cr. 3. An examination of some topics in traditional and contemporary theories of knowledge such as skepticism, perception, memory, belief, and truth.

129. Symbolic Logic. Cr. 3. A study of quantification theory, including the concepts of proof, consistency, and completeness, and topics in logical theory. (Note: Philosophy 3, or its equivalent, will be presupposed.)

144. Existentialism. Cr. 3. An examination of some of the major works of 19th and 20th century existentialists and their approach to philosophical problems.

146. Analytic Philosophy. Cr. 3. An examination of some of the works of contemporary British and American "analytic philosophers" and their approach to philosophical problems.

190 (290). Philosophical Topics. Cr. 3. An examination of the works of one major philosopher, such as Kant or Wittgenstein; or of a single philosophical problem area such as scientific explanation or free action; or of a single philosophical approach such as Positivism or Pragmatism. This course may be taken more than once if the topics are different.

193. Independent Projects. Cr. 1-3. Students may undertake independent study of some person, problem, theme, etc., under the supervision of some member of the philosophy department.

Consult the Philosophy Department Bulletin published by the department each semester or the University's Advanced Course Selection Guide to ascertain when any particular course will be offered. The bulletin lists departmental offerings for the succeeding semester and gives detailed descriptions of each course listed for preregistration. Copies are available at the departmental office and at every registration.

PHYSICAL EDUCATION

Professors

Ruth E. Brown
Ph.D., Florida State University
Richard P. Koenig
M.S., Indiana University
William L. Steinbrecher
Ed.D., Florida State University

Associate Professors

Norman R. Amundsen
M.S., University of Wisconsin
William R. Koch
M.S., Indiana University

Assistant Professor

Donald W. Palm (chairman)
M.S., Southern Illinois University

Instructors

Sandra J. Harms
B.S., Valparaiso University
Paul A. Smith
M.S., Indiana University
Cynthia J. Young
M.A., Ohio State University

Part-time Assistant Professor

Thomas J. Smith
M.S., Indiana State University

Part-time Instructors

Denise E. Criswell
M.S., Fort Hays State University
D. Jean Kesterson
M.S., Indiana University
Roderick G. Moore II
B.S., Valparaiso University
Rin Curtis Seibert
M.S., Indiana University

Professor Emeritus

Emory G. Bauer

Associate Professor Emeritus

John H. Krause

The well-known claim "A sound mind in a sound body" has greater significance today than ever before. In a world in which leisure time comprises larger and larger portions of our week, and technology increasingly steals our opportunity for personal excellence and achievement, the education of the individual concerning the opportunities and benefits of play and sport is significant.

The Department seeks to provide each student with valuable educational experiences designed to enhance the quality of on-campus life as well as providing them with knowledge and abilities suitable for life-time personal use.

Professionally, although physical education within a school setting is a continuing area of opportunity, the love affair of the American people with personal activity and enjoyment of spectator sport has created new areas of opportunity for the physical educator: adult fitness, leisure services, sports writing and broadcasting, sports clubs, clothing and equipment designing and sales. All provide opportunities for new talents and vision.

Degree. Completion of the degree requirements of the College of Arts and Sciences with a major in physical education leads to the degree of Bachelor of Science in Physical Education.

Major. A minimum of 28 credits in physical education. Must include Physical Education 38, 48, 90, 95, 99, 120, and 125. In addition, students must complete Biology 50 and 115, Chemistry 43, Home Economics 7, and Psychology 51. Substitutions for any of these courses may be made only with the permission of the chairperson of the department.

Minor. A minimum of 18 credits in physical education constitutes a minor. Must include 90, 99, and 125.

Approval of Schedules. All students taking a major or minor in the department and all students planning to gain certification in physical education must have their schedules approved by the chairperson of the department at the beginning of each semester, beginning with their freshman year.

***Basic Courses in Physical Education.** Not more than four credits earned in course 10 may be counted toward any degree other than the Bachelor of Science in Physical Education. Courses are presented in various combinations and organizational structures. One full credit hour is offered for each full semester of class work. S/U grades are optional in all classes.

Undergraduate and Graduate Credit.

10. Activities. 0+2, Cr. 1. Individual, dual, team physiological stress activities are presented in various combinations. May be repeated but the activity offerings within the course may not be repeated for credit. An independent study may be taken in this area with permission of the chairperson of the department.

PERFORMANCE AND MOVEMENT.

20. (Formerly 51). Individual and Team Activities. Cr. 1. This course will be presented in a number of one-credit sections. No section may be repeated for credit. Offerings include tennis, volleyball, track, basketball, wrestling, baseball, softball, soccer, field hockey, golf, badminton, fencing, dance, scuba and springboard diving.

25. (Formerly 55). Gymnastic Activities. 1+1, Cr. 1. This course will consist of two sections: Section A. Fundamentals of Stunts and Tumbling; Section B. Fundamentals of Apparatus.

28. (Formerly 64). Dance Patterns and Forms. Cr. 3. Basic forms of folk, square, ethnic, and social dance.

30. (Formerly 60). Officiating in Sports. 0+2, Cr. 1. This course will be divided into a number of one-credit sections dealing with a specific sport. Among the officiating areas presented will be basketball, volleyball, gymnastics, baseball and softball. No section may be repeated for credit.

34. (Formerly 63). Advanced Lifesaving. 0+2, Cr. 1. Analysis and practice of skills in swimming and lifesaving. This course leads to the American Red Cross Advanced Lifesaving Certificate.

35. (Formerly 69). Water Safety Instruction. 1+1, Cr. 1. Techniques of teaching swimming and lifesaving. This course leads to the American Red Cross Water Safety Instructor's Certificate. Prerequisite: an American Red Cross Senior Lifesaving Certificate.

38. (Formerly 67). Methods and Evaluation. Cr. 3. Teaching techniques, organizational methods, and evaluation techniques for activity and movement programs.

LEISURE AND MOVEMENT.

40. (Formerly 120). Theory and Techniques of Recreational Programs. Cr. 3. A basic course designed to explore all aspects of recreational programs. Offered in alternate years.

45. (Formerly 113). The Learning Potentialities of the Out-of-Doors. 1+2, Cr. 2. Learning opportunities as provided by camping and outdoor education. Offered as a short course.

48. Special Topics in Recreation and Leisure Time. Cr. 1-2. A variety of classes pertaining to recreation and leisure time activities, e.g., organization of intramural programs, adult fitness and activities for the elderly.

COMPETITION AND MOVEMENT.

70. (Formerly 92). Implications of Competitive Sports Experiences. Cr. 3. An introductory class in coaching with an emphasis on conditioning principles, discussions of the psychological problems involved in the competitive experience, and an overview of philosophical beliefs concerning the nature and value of the competitive sports experience.

*Anyone who has served in the Armed Forces for at least one year is exempted from this requirement, except a National Guard member.

75. (Formerly 96). Athletic Strategies and Coaching Techniques. Cr. 1-2. A number of sections devoted to the study of coaching procedures, techniques, and strategies in specific sports. Among the sports offered are baseball, track and field, basketball, football, swimming, volleyball, and gymnastics.

78. Special Topics in Competitive Experiences. Cr. 1-2. A variety of classes pertaining to the competitive experience, e.g., biomechanical analysis, principles of physiological conditioning, athletic administration, etc.

THE BODY IN HEALTH AND DISEASE.

90. (Formerly 47). First Aid, Health, and Safety. (Also offered as Home Economics 101.) Cr. 2. A study of the prevention and the emergency care of sudden illness and injury. This leads to Standard American Red Cross Certification.

95. (Formerly 41). Athletic Training. 2+2, Cr. 3. The prevention, care and rehabilitation of athletic injuries.

96. (Formerly 42). Practicum in Athletic Training. Cr. 1. The practical application of techniques used in dealing with injuries. Prerequisite: Physical Education 95. May be repeated for credit.

99. (Formerly 114). Seminar in Health. Cr. 3. A study of the human body in health and disease. Included are discussions of major American health concerns, their incidence and prevention.

THE STRUCTURAL AND PHYSIOLOGICAL BASIS OF MOVEMENT.

115. Anatomy and Physiology. (Also offered as Biology 115.) 2+5, Cr. 4. A study of the structure and function of the organs and systems of the human body.

120. (Formerly 45). Physiology of Exercise. Cr. 2-3. The physiological response of the body to exercise and training.

125. (Formerly 40). The Structure and Function of Movement. 2+2, Cr. 3. The kinesiological and biomechanical principles of movement.

THE SOCIOLOGICAL BASIS OF MOVEMENT.

162. (Formerly 110). The Historical and Philosophical Nature of Activity. Cr. 1-2. The exploration and study of the historical and philosophical implications of activity.

164. (Formerly 168). Sports and Society. Cr. 3. A study of the role of sports in society and the effects of culture and society on sports.

EDUCATION AND MOVEMENT.

170 (270). (Formerly 112-212). Movement and Learning. 2+2, Cr. 3. The study of the place of movement in the life of the child and the ways in which various types of activity can affect the development of the child.

175. (Formerly 121). Physical Education Programs for Special Children. Cr. 2-3. Study of the needs and abilities of special children in movement activities. Offered in alternate years.

180. (Formerly 30). Independent or Group Study. Cr. 1. A student or group of students may elect to develop a plan of study to investigate in greater depth any area of physical education or any related discipline. May be repeated for credit. Prerequisite: permission of the chairperson of the department.

190. Internship in Physical Education or Athletics. Cr. 1-3. Students will gain practical experience by working in university programs or offices, public agencies or businesses. A variety of offerings will be provided either as independent or group work. Practical experience opportunities in sports clubs, community and adult fitness programs, media and communications, programs for the elderly, athletic administration, intramural and facility management, and other similar work experiences will be arranged. Objectives, evaluations, and procedures for conduct of the course will be jointly planned by the student, the chairperson of the department and the program supervisor. May be repeated in different areas.

191. The Teaching of Physical Education. Cr. 2. (See Education 191.) This course will deal with observation and assisting in physical education classes and will be presented in various organizational structures. This course may not be counted toward a major or minor in physical education. Prerequisite: admission to Supervised Teaching.

PHYSICS

Professors

Donald D. Koetke (chairman)
Ph.D., Northwestern University
Virgil O. Naumann
Ph.D., University of Wisconsin

Assistant Professors

Philip D. Campbell
M.S., State University of New York
at Stony Brook
Robert W. Manweiler
Ph.D., Cornell University

Physics is the study of natural phenomena in an attempt to explain the behavior of physical systems in terms of a limited number of fundamental physical laws. This study is predicated on careful observation and experimentation, thoughtful analysis, and creative insights. It is both descriptive and predictive and encompasses a realm from the submicroscopic particles of the nucleus to the distant constituents of the universe.

In this context, the Department of Physics offers a program of study to prepare students for graduate study in physics or for immediate employment after graduation. Those students preparing for other professional careers in engineering, law, medicine, mathematics, computer science, or business, may find an undergraduate major or minor in physics to be supportive and a sound intellectual preparation. The physics major program emphasizes both the fundamental physical laws of nature and the application of such laws to challenging problems confronting society today. Students have excellent opportunities to develop the physical insights, as well as the mathematical, computational, and laboratory skills, necessary for such applications. Physics students pursue research projects under the direction of members of the physics faculty in such diverse subjects as nuclear and reactor physics, solar energy, and astronomy and astrophysics.

The Department sponsors a local chapter of the National Society of Physics Students and qualified students are elected to membership in the national honor society, Sigma Pi Sigma.

Major. A minimum of 28 credits in physics. Courses must include Physics 79, 95, 96, 102, 125, 126, 127, 151, 193, and 195.

One year of chemistry is strongly recommended. Students preparing for graduate work should also take Physics 130, 152, 181, 183, 187, and Mathematics 184. It is assumed that students majoring in physics will acquire minimum competency in computer programming in BASIC and FORTRAN.

Minor. A minimum of 16 credits in physics constitutes a minor. Physics 79 and 125 must be included.

Approval of Schedules. All students taking a major or minor in the department and all students planning to teach physics must have their schedules approved by the chairperson of the department at the beginning of each semester.

Undergraduate Credit.

47. Essentials of Physics. 3+3, Cr. 4. The development of the basic concepts of physics emphasizes intuition, logic and experiment rather than mathematical analysis. Specific topics included are: space, time, and motion; energy, conservation laws, and heat. Not open to students who have taken Physics 77.

48. Essentials of Physics. 3+3, Cr. 4. This course is a continuation of Physics 47. Specific topics include the study of electricity and magnetism, wave phenomena, optics, atomic and nuclear physics. Not open to students who have taken Physics 78. Prerequisite: Physics 47 or consent of the instructor.

69. Musical Acoustics. 3+2, Cr. 4. A study of the physical nature of sound waves, the production and measurement of sound, and the physical and psychophysical basis of hearing and music. Although this course is of general interest, it is also suitable for music or other arts majors in fulfillment of their natural science requirement.

77. Principles of Physics: Mechanics and Heat. 3+3, Cr. 4. An introductory course in mechanics and heat designed for pre-medical, physics, and chemistry students. The mathematical level of this course is primarily that of simple algebra, but relations between physics and calculus are discussed when appropriate, so a student should have taken a course in differential calculus or be taking one concurrently. Not open to students who have taken Physics 47.

78. Principles of Physics: Electricity, Magnetism, and Waves. 3+3, Cr. 4. A continuation of Physics 77 which treats electricity, magnetism, wave motion, light and sound. Prerequisite: Physics 77 or advanced placement by permission of the chairperson of the department. Not open to students who have taken Physics 48.

79. (Formerly 110). Principles of Physics: Atoms and Nuclei. 3+0, Cr. 3. An introduction to the special theory of relativity, physics of the atom with emphasis on the hydrogen atom, Schrodinger wave mechanics, physics of condensed matter, physics of the nucleus including radioactivity, and elementary particle physics. Prerequisites: Mathematics 76 or concurrent registration and Physics 78.

81. Descriptive Astronomy I. Cr. 2-3. A study of the history of man's view of the universe, the tools and methods employed by the modern astronomer to gain information and understanding of the universe, and the structure of the solar system as revealed by earth based observation and space probes. Biweekly labs are designed to give students personal experience with basic astronomical equipment and analysis of astronomical data. Only elementary mathematics is required. This course, together with Physics 82, may be used to fulfill natural science general education requirements. Physics 81 may, with the permission of the department chairperson, be taken for 3 credits with additional emphasis on astronomy as a quantitative science.

82. Descriptive Astronomy II. Cr. 2-3. A continuation of Physics 81. Topics will include a study of our sun, stellar systems, stellar classification, the content and evolution of stars, galaxies, and the universe. Biweekly labs are designed to give students personal experience with basic astronomical equipment and analysis of astronomical data. Only elementary mathematics is required. Physics 81-82 may be used to fulfill natural science general education requirements. Physics 82 may, with the permission of the department chairperson, be taken for 3 credits with additional emphasis on astronomy as a quantitative science.

83. Observational Astronomy. 0+3, Cr. 1. Practical experience in the application of photographic and photometric techniques to astronomical problems, stellar magnitudes, and variable stars. Prerequisites: Physics 81 and 82.

95. Electricity and Electronics. 2+0, Cr. 2. This course will emphasize the study of alternating current circuits and solid state electronic devices including transistors and analog integrated circuits. Prerequisite: Physics 78 or equivalent.

96. Electricity and Electronics Laboratory. 0+3, Cr. 1. This laboratory course is to be taken concurrently with Physics 95.

100. Topics in Physics and Astronomy. Cr. 1-4. A study of various topics of current interest in physics and astronomy. For many topics, little or no prerequisite would be required. Interested students are urged to contact the instructor or department chairperson for specific information.

102. Analytical Mechanics. 3+0, Cr. 3. A course utilizing vectors and the calculus to study the forces and fields of mechanics on a mathematically rigorous basis. Among the specific areas included are: Newton's laws of motion; linear and plane motion of a mass point; free, damped and driven oscillators; conservation laws; central force motion; dynamics of systems of particles; some rigid body motion. Prerequisites: Physics 78 and Mathematics 72 or 76 or advanced placement by the chairperson of the department.

125. (Formerly 111). Experimental Physics. 0+3, Cr. 1. Selected experiments in physics include atomic physics, radioactivity, elementary particle physics, special relativity, holography and optics. Prerequisite: Physics 78.

126. Data Reduction and Error Analysis. 1+0, Cr. 1. The study and application of various techniques employed in the reduction of laboratory data to include probability distributions, regression analysis, tests of goodness of fit, data smoothing, and the methods for determining the errors on measured and fitted parameters. Extensive use of the computer is expected. Prerequisites: Computer Science 23 and 25, Mathematics 77, Physics 125.

127. (Formerly 121). Experimental Physics. 0+3, Cr. 1. Experiments in radiation detection and analysis employing modern detection and analysis equipment. Prerequisites: Physics 79 and 125 and Mathematics 77.

130. Thermal Physics. 3+0, Cr. 3. A study of the basic principles of thermodynamics, kinetic theory, and elementary statistical mechanics. Among the topics included are: equations of state; laws of thermodynamics; concepts of temperature, reversibility, and entropy; kinetic theory; transport phenomena; introductory probability theory; statistical description of systems of particles. Prerequisite: Physics 79.

151. Electromagnetic Fields. 3+0, Cr. 3. A study of electric and magnetic fields, their sources and interactions in empty space and in dielectric and magnetic media. Prerequisites: Physics 102 and Mathematics 102 or 104 or advanced placement by the chairperson of the department.

152. Electromagnetic Waves and Physical Optics. 3+0, Cr. 3. Proceeding from Maxwell's equations, we investigate the wave aspects of electromagnetic fields including propagation, reflection, refraction, polarization, interference and diffraction. Other topics may include: optics of solids, lasers, holography, radiating systems, wave guides, thermal radiation and optical spectra. Prerequisite: Physics 151.

181. Nuclear and Reactor Physics. 3+3, Cr. 4. Nuclear and reactor physics for students with physics or engineering backgrounds. Topics include nuclear models, nuclear reactions, fission, neutron diffusion, neutron moderation, bare homogeneous thermal reactors, reflected reactors, heterogeneous reactors and an introduction to neutron transport theory. Laboratory work will include the study of nuclear reactions using the 300 KeV particle accelerator, fundamental particle properties, neutron diffusion and slowing down properties, subcritical reactor studies and pulsed neutron methods using the Physics Department's natural uranium light water moderated subcritical nuclear reactor and neutron generator. Prerequisite: Physics 125.

183. Introduction to Quantum Mechanics. 3+0, Cr. 3. The fundamental concepts of quantum physics are examined, with applications to atomic, nuclear and solid state physics. Topics may include the Schroedinger equation, the hydrogen atom, angular momentum and electron spin, identical particles, multielectron atoms, and collision theory. Prerequisite: Physics 79 or consent of the instructor.

187. Theoretical Physics. 3+0, Cr. 3. The application of advanced mathematical methods to physical problems. Topics may include LaGrange methods, small oscillation theory including coupled oscillators, generalized rotation, the theory of relativity, numerical methods, perturbation theory and group theory. Prerequisites: Physics 102 and Mathematics 102 or 104. (Physics 151 may be taken concurrently.)

191. The Teaching of Natural Sciences. Cr. 2. (See Education 191.) A study of the methods of teaching natural sciences in the secondary schools. Lectures, discussions, demonstrations, and projects. This course may not be counted toward a major or minor in this department. Prerequisite: admission to Supervised Teaching.

193. Physics Colloquium. Cr. 0. All physics majors are expected to register for this course.

195. Special Problems in Physics. Cr. 1-2. Each student undertakes a special research problem. A written report and an oral presentation at the Physics Colloquium are required. Student research problems must be approved by the department. Prerequisite: consent of the chairperson of the department.

POLITICAL SCIENCE

Professor

Albert R. Trost, Jr. (chairman)
Ph.D., Washington University

Associate Professors

Larry R. Baas
Ph.D., Kent State University
Richard L. Balkema
Ph.D., Southern Illinois University
James E. Combs
Ph.D., University of Missouri

Visiting Instructor

Russell G. Brooker
M.A., The University of Chicago

University Professor

Albert G. Huegli
Ph.D., Northwestern University

The Department offers courses which provide the student with an understanding of the basic concepts, methods of study, and traditions of politics. In consultation with the Chairperson, the student may wish to concentrate in areas within the discipline such as executive processes, judicial behavior, comparative politics, and the like.

Student excellence is recognized through membership in Pi Sigma Alpha, a national political science honorary organization. The Beta Nu chapter of Pi Sigma Alpha was installed in February 1953.

Major. A minimum of 30 credits in political science. Courses must include Political Science 1, 2, 41 or 44 or 65, 53 or 54, and 196.

Minor. A minimum of 18 credits in political science constitutes a minor. Political Science 1, 2, and 41 or 44 or 65 must be included.

Approval of Schedules. Students taking a major or a minor in the department must have their schedules approved by the chairperson of the department at the beginning of each semester.

For information concerning the Washington Semester Program see page 16. For information concerning the Urban Affairs Semester Program see page 16. For information concerning the Semester on the United Nations see page 17.

Undergraduate and Graduate Credit.

1. Introduction to Political Science. Cr. 3. An introduction to some basic concepts, approaches, and methods in the discipline of political science.

***2. The Government of the United States.** Cr. 3. A study of the structure and function of the federal system, with emphasis on the national government.

10. The Field of Law. Cr. 1. A course designed to help students prepare for the professional study of law. Open to all students. (This course may not be counted toward a major or minor in political science.)

41. State and Local Politics in the United States. Cr. 3. Comparative analysis of state and local political systems in the United States. Emphasis to be placed on the contemporary role of states and localities in the development and implementation of public policies.

44. Comparative Politics. Cr. 3. Comparative study of Western and non-Western political systems. Includes examination of conceptual frameworks for comparative analysis.

*Credit for Political Science 2 may be earned through the College Level Examination Program (CLEP) subject examination in American Government.

Note: The following courses are not open to freshmen.

53. Classical Political Theory. Cr. 3. An intense investigation of the major formulations and problems of politics as developed by political philosophers from the Greeks through the nineteenth century.

54. Contemporary Political Theory. Cr. 3. An intense investigation of the major, empirical and normative formulations of politics in the twentieth century.

60. Strategies of Inquiry. Cr. 3. An examination of the philosophy, methods, and techniques of political inquiry. Recommended to be taken in sophomore year.

65. International Relations. Cr. 3. The fundamentals of international politics and international organization, particularly the United Nations and its specialized agencies.

153. Politics of Industrialized States. Cr. 3. A study of political systems in the Western industrialized world. Attention will primarily be directed at Western and Eastern Europe, alternately. Prerequisite: Political Science 44 or consent of the chairperson of the department.

154. Politics of Developing States. Cr. 3. A study of the governments and political problems of selected newly-independent, under-developed states. Areas given in a semester will vary across Africa, Latin America, the Middle East, and the Far East. Prerequisite: Political Science 44 or consent of the chairperson of the department.

155 (255). Problems in State and Local Politics. Cr. 3. A study in depth of important contemporary problems on the state or municipal levels in the United States. Given in cooperation with the Community Research Center. Prerequisite: Political Science 41 or consent of the chairperson of the department.

156 (256). Problems in American Politics. Cr. 3. An intensive study of topics in the process, policies, and functions of the American political system (e.g., Political Parties). Prerequisite: Political Science 2 or consent of the chairperson of the department.

157. Problems in International Relations. Cr. 3. An intensive study of topics in international relations (e.g., International Organizations). Prerequisite: Political Science 65 or consent of the chairperson of the department.

158. Problems in Political Philosophy. Cr. 3. The study of one or more specific problems or philosophers in modern political philosophy. Prerequisites: Political Science 53 and 54 or consent of the chairperson of the department.

159. Problems in the Judicial Process. Cr. 3. The study of selected topics relating to the judicial process, Constitutional Law, and other socio-legal problems. Generally the course will focus on issues relating to the courts as a political system, influences on judicial decisions, and the impact of court decisions. Prerequisite: Political Science 2.

160. Constitutional Law I. Cr. 3. An analysis of Supreme Court decisions relating to judicial review, the power of national and state governments, federalism, the separation of powers, Presidential and Congressional power, and related topics. Prerequisite: Political Science 2.

161. Constitutional Law II. Cr. 3. A continuation of Political Science 160 focusing on Supreme Court decisions relating to the Bill of Rights, equal protection, due process, and related topics. Prerequisite: Political Science 160 recommended but not required.

162. Public Administration. Cr. 3. An introduction to the basic principles of administrative organization and management in government. Prerequisites: Political Science 2 and junior standing.

163. Public Policy. Cr. 3. An introduction to the study of the public policy process, focusing on the politics and science of policy formulation, execution, and evaluation.

175. Seminar in Political Science. Cr. 2-3. These are full- or half-semester courses covering a variety of subject areas, with subtitles and content dependent upon instructor choice and student interest. They will be of two types, and labeled accordingly: (a) reading and discussion seminars, or (b) seminars with major papers.

191. The Teaching of Social Studies. Cr. 2. (See Education 191.) A study of the methods of teaching social studies in secondary schools. Prerequisite: admission to Supervised Teaching. This course may not be counted toward a major or minor in political science.

195. Independent Study in Political Science. Cr. 1-3. Individual research on a specific problem in one of the fields of government under the supervision of a member of the departmental staff. A written report is required. Prerequisites: major with junior standing and consent of the chairperson of the department.

196. Research Seminar in Political Science. Cr. 3. A topical seminar in a selected area of political science, in which students are required to do guided research within the topic area. Designed for majors but open to other students.

PSYCHOLOGY

Professor

Forrest L. Vance
Ph.D., University of Minnesota

Associate Professors

John W. Harris (on leave)
Ph.D., Illinois Institute of Technology
Matthew S. Ikeda
Ph.D., The University of Chicago
Richard D. Millar
Ph.D., University of Missouri

Assistant Professors

David L. Rowland
Ph.D., The University of Chicago
Stephen A. Truhon
Ph.D., Michigan State University

Professor Emeritus

Rudolph C. Waldschmidt

The psychology faculty consists of individuals with diversified interests relative to their own areas of expertise. Because of this diversity, the Department of Psychology curriculum provides a comprehensive view of psychology. Each semester the department offers courses in experimental, social, developmental, and clinical-counseling psychology as well as special interest courses. In addition to the course selections, the department makes available to students opportunities for psychology applications and research. Practicum experiences are available in the surrounding community involving the developmentally disabled, the mentally and emotionally disturbed, the elderly, and criminal offenders. On-campus opportunities include laboratory, teaching, and research assistantships. The department provides the student of psychology with the breadth of knowledge and applied skills suitable for bachelor-level psychology careers, graduate study, and continued personal growth.

Major. A minimum of 27 credits in psychology. Courses must include Psychology 51 or 52, and 100. In addition a minimum of 7 credits must be taken in the 130-139 experimental psychology courses, one of which must be taken with a laboratory; a minimum of 3 credits must be taken in the 140-149 developmental psychology courses, and a minimum of 3 credits must be taken in the 150-159 clinical-counseling psychology courses. Special topic courses may be used to fulfill some of these requirements with the consent of the department chairperson. All programs must be developed in counsel with, and approved by, an assigned departmental faculty adviser. Consult with the chairperson of the department for additional information.

Minor. A minimum of five courses for a total of at least 15 credits in psychology constitutes a minor. Courses for the minor must include 51 or 52, 100, and any 130 level course with or without a laboratory. All programs must be developed with the assistance of an assigned department faculty adviser. Consult with the chairperson of the department for additional information.

Approval of Schedules. All students taking a major or a minor in psychology must have their schedules approved by the chairperson of the department at the beginning of each semester.

Undergraduate and Graduate Credit.

***51. General Psychology.** Cr. 3. An introduction to the general field of psychology with special emphasis upon the scientific study of behavior. (Not open to students who have taken 52.)

52. General Experimental Psychology. 3+2, Cr. 4. An introduction to the general field of psychology with an emphasis on experimental procedures and data analysis techniques. Students will have the opportunity to study psychological phenomena directly through various laboratory experiments. (For natural science credit only. Not open to students who have taken 51.)

Note: Psychology 51 or 52 is a prerequisite for all of the following courses.

53. Abnormal Psychology. Cr. 3. An analysis of psychopathology within the framework of theory and research.

54. Social Psychology. Cr. 3. A study of social influences on the psychological functioning and behavior of the individual.

55. Industrial and Organizational Psychology. Cr. 3. This course deals with applications of psychological principles, techniques, and theories to the worker and work environment. Special emphasis is placed on issues of satisfaction, motivation, and productivity.

56. Psychology of Personality. Cr. 3. An introduction to various theories of personality, with emphasis on their implications for current psychological applications and research.

100. Statistical Methods. Cr. 3. An introduction to the fundamentals of descriptive and inferential statistics for the behavioral sciences.

132. Physiological Psychology. 3+0, Cr. 3, or 3+3, Cr. 4. A study of the structure and function of the nervous system in relation to perception, learning and emotion. Supervised individual experimentation. Laboratory optional.

135. Sensation and Perception. 3+0, Cr. 3, or 3+3, Cr. 4. An introduction to the study of sensory and perceptual phenomena and the physiological mechanisms that underlie them. Laboratory optional. Prerequisite: Psychology 100 or consent of instructor.

136. Conditioning and Learning. 3+0, Cr. 3, or 3+3, Cr. 4. An introduction to the basic principles of conditioning and learning. Focus is on empirical data and theories of reinforcement, extinction, memory, etc., with representative laboratory experiments in selected areas. Prerequisite: Psychology 100 or consent of the chairperson.

140. Human Growth and Development. Cr. 3. Life-span approach to human growth and development involving maturational, cognitive and behavioral changes with age. Major empirical findings will be reviewed with attention to current theoretical, methodological and practical issues.

142 (242). Psychology of Childhood. Cr. 3. Study of the maturational, cognitive and behavioral changes associated with the development of the child, with special attention to social relations. Prerequisite: 6 hours of psychology or consent of the instructor.

143 (243). (Formerly 141). Adolescent and Early Adulthood Development. Cr. 3. Analysis of the biological, psychological, sociocultural and historical contributions to behavior changes during the adolescent and early adulthood years.

152 (252). Behavior Modification. Cr. 3. The application of learning principles to the modification of human behavior. Discussions will include ethical issues and current research relating to behavior management techniques as utilized in self control, education, institutions, business, social, personal and family interventions. Prerequisite: 6 hours of psychology or consent of department chairperson.

*Credit for Psychology 51 may be earned through the College Level Examination Program (CLEP) subject examination in General Psychology.

153 (253). The Exceptional Child. Cr. 3. Analysis of the impact of various perceptual, cognitive and physical handicaps upon the child. Attention will also be given to the study of the gifted, creative child. Prerequisite: one of the developmental psychology courses (140-149) or educational psychology or consent of the instructor.

154. Testing and Measurement. Cr. 3. Principles and methods of psychological measurement and evaluation with application to specific testing situations. Course intensification option: 1 credit. Prerequisite: Psychology 100.

156 (256). Introduction to Counseling. Cr. 3. A review of contemporary counseling theories and processes as they are applied to various problem areas.

161. Theories and Issues. Cr. 3. A systematic analysis of contemporary psychological theories with special reference to their historical origins in science, philosophy, and the classical systems of psychology. Prerequisite: 6 hours of psychology.

162. Psychology Practicum: Field Experience. Cr. 3. Emphasis is on the functions of social-service and mental-health agencies. Each student spends at least 4 hours each week in a supervised work activity at an agency in Northwest Indiana and 1½ hours each week in a classroom/discussion meeting. A written report is required. There is one field trip to a participating agency. Prerequisites: at least junior standing and consent of the instructor. Maximum of 9 credit hours; only 3 credit hours may apply toward a major.

165 (265). Special Topics in Psychology. Cr. 1-3. Selected topics based on the special interest areas of students and faculty. These topics have included aging, sex differences, drugs and behavior, community psychology, and altered states of consciousness. Topics and descriptions will be announced in advance. Prerequisite: consent of instructor or chairperson of the department.

195. Independent Research in Psychology. Cr. 1-3. Individual research projects under staff supervision. A written report is required. Prerequisite: an advanced laboratory course in psychology or consent of the chairperson of the department. This course may be repeated for credit. Maximum: 6 credit hours.

SOCIAL WORK

Associate Professors

Clarence C. Rivers
M.S.W., Indiana University
Lou Jeanne Bray Walton (chairwoman)
M.A., The University of Chicago

Professors Emeriti

William J. Neal
Margaretta Sackville Tangerman

Assistant Professor

William D. Adams
M.S.W., University of Denver

The Department of Social Work is fully accredited by the Council on Social Work Education. It offers an undergraduate professional curriculum, the completion of which leads to the Bachelor of Social Work degree.

The curriculum is a strong liberal arts program with a sequence of carefully selected courses from this department and other departments of the College of Arts and Sciences.

The primary task of this department is to prepare its graduates for entry into the profession at the beginning level of practice. Secondly, some majors may seek graduate education in social work. Finally, selection of courses from this department will enhance the preparation of students who anticipate a career in one of the various helping professions, such as the fields of ministry, health care, education, law, and behavioral sciences.

A student's formal admission into the department as a major requires completion of Social Work 51 and departmental approval.

Each social work major is assigned a permanent faculty adviser. Students may participate in the Student Social Work Organization and also select their representative to department meetings. A manual is available to all majors as a guide to departmental standards.

Students wishing to move beyond a generic base may elect to concentrate in one of the following areas: aging, church social services, criminal justice, and urban studies.

The majority of both full-time and part-time faculty hold the ACSW credential, as do many of the field instructors.

Major. A minimum of 37 credits in social work. Courses must include Social Work 51, 110, 120, 130, 140, 155, 156, 165, 181, and 182. The following sequence is recommended for all social work majors. Freshman: Social Work 51; Sophomore: Social Work 110, 120, 130; Junior: Social Work 140, 165; Senior: Social Work 155, 156, 181, and 182.

Also required are Psychology 51 or 52 and 100, Sociology 1 and 26, one course in political science, and one of the following courses: Economics 71 or 72, Geography 62, or Home Economics 115. Biology is recommended in meeting the general education requirement.

Approval of Schedules. All students taking a major in the department must have their schedules approved by the chairperson of the department at the beginning of each semester.

Undergraduate Credit.

51. Introduction to the Profession of Social Work. Cr. 3. The major objective of this course is to familiarize the student with the basic issues, concepts, and systems encountered by the social work practitioner in the helping process with the community. This course is required for all social work majors; it can be of great benefit to students pursuing a career in such fields as corrections, education, ministry, law, nursing, medicine, and church work. Community volunteer and observational experience are required.

110. Social Welfare: Policy and Services. Cr. 3. The major focus (objective) of the course includes an historical survey and review of social welfare policies and programs. A descriptive analysis is made of various private, voluntary, and governmental welfare programs and agencies. Values, attitudes, political and economic forces are explored in viewing the American response to the needs of welfare consumers. Prerequisite: Social Work 51 (may be taken concurrently by juniors and seniors) or consent of the chairperson of the department.

120. Human Behavior and Social Environment. Cr. 3. This course explores the human developmental life cycle and its interplay with societal values and community functioning. Theoretical approaches to human development and societal influences are critically examined. Prerequisite: Social Work 51 or consent of the chairperson of the department.

130. American Minority Lifestyles and Human Rights. Cr. 3. This course offers a study of the social needs of American minority groups in relationship to their human rights. Patterns of human development and analysis of social change provide the framework for study of minority rights and lifestyles. This material prepares the student for academic understanding and appreciation of current minority issues. Prerequisite: sophomore standing.

140. Professional Intervention and Human Services. 3+4, Cr. 4. A course that both introduces a student to human systems theory (individual, group, and community) and to the variety of social work interventions. A community field experience and classroom laboratory are required. Prerequisites: Social Work 51, 110, and 120.

155. Social Work Practice I. Cr. 7. The generic social methods and field instruction course is designed to establish a common base for direct service to people—individuals, family, small group, and community—and institutional segments of society. The central theme of the semester is that the problems with which the social worker are involved dictate particular social work intervention. The substantive concentration of the sequence, therefore, is on the

integration of theories, principles, skills, and processes of the various social work methods with clients. A professionally directed field practicum is offered each semester. The student works on each Thursday in a community social service agency. Prerequisites: senior standing and a major in social work.

156. Social Work Practice II. Cr. 7. In this second semester course the student experiences an intensification of the required field practicum which will include work days on Tuesday and Thursday. Prerequisite: Social Work 155.

165. Introduction to Methods of Social Research. Cr. 3. This course is an introductory overview of the basic processes in scientific inquiry in the social sciences, particularly social work. Major topics to be covered are: problem formulation, research design, measurement, data collection, analysis and interpretation, and reporting results.

181. Current Issues in Social Work. Cr. 1. This seminar is jointly designed by senior majors and faculty to deal with those issues of concern which currently face clients and practitioners in the Social Services Delivery System. Prerequisite: senior standing or consent of the chairperson of the department.

182. Analysis of Social Policy: Housing, Income Maintenance, and Health Care Services. Cr. 3. An intensive study of Social Welfare programs, principally in the United States, and an historical review of the contemporary forces, primarily social and economic, that have shaped their development. Prerequisite: senior standing or consent of the chairperson of the department.

SPECIALIZED OFFERINGS.

170. Social Work Colloquium. Cr. 2-3. A study of selected topics of contemporary concern for the social worker, such as adulthood, clinical methods and techniques for the helping professions, housing, independent study, juvenile delinquency, poverty. Varied listings to be announced. Prerequisite: junior standing or consent of the chairperson of the department.

180. Advanced Seminars in Social Work. Cr. 1-3. These are full- or half-semester courses specializing in particular areas of social work practice or methodology such as, Administration, A Study of Federal Agency Structures, Current Issues in Group Services, Family Therapy, New Techniques for Solving Community Problems, Research, Supervision, and Children's Services. Prerequisites: junior or senior standing and consent of the chairperson of the department.

SOCIOLOGY

Professor

Jeff G. Johnson (on leave)
Ph.D., University of Southern California

Associate Professors

LeRoy O. A. Martinson
Ph.D., The University of Chicago
Ted D. Westermann (chairman)
Ph.D., Emory University

Assistant Professor

John T. Whitehead, Jr.
M.A., State University of New York
at Albany

Instructor

Dorothea A. Nuechterlein
M.A., Queen's University

Sociology is the study of social life—of the structures and processes of human interaction. Its subject matter ranges from intimate family life to the hostile mob, from crime to religion, from the divisions of social class to the shared beliefs of a common culture. Few other fields of study are as broad in scope or as relevant to an understanding of the human condition.

The Department of Sociology seeks to help students achieve an awareness of modern society and of the causes and consequences of human social behavior. Its basic objective is to produce students who understand themselves, the groups in which they participate, and their society. By expanding their knowledge of the concepts, theories, and research methods of sociology, students develop skills in social analysis, enhance their capacity for

self-evaluation, and grow in their ability to make informed decisions. Thus sociology aids them to function as concerned, responsible human beings. In seeking to attain these objectives the department has developed a curriculum, grounded in the liberal arts tradition, which is flexible and responsive to student needs. Built around a core of fundamental courses, it provides for a diversity of professional and vocational interests by offering the following two program emphases.

The General Major. Intended for students who have general interest in sociology or who are interested in graduate study, the general major requires a minimum of 29 credits in sociology. Courses must include 1, 7, 11, 12, and 189. Of the remaining minimum credits, no more than three may be taken from the Introductory Level, and no more than three from the Foundation Level.

A course in statistics is recommended. Prospective graduate students should consider electing a Computer Science Minor.

Criminal Justice Studies. Intended for students who wish to enter such fields as law enforcement, probation and parole, corrections, and other criminal justice agencies; or who wish to prepare for a career in law. This major requires a minimum of 35 credits in sociology. Courses must include 1, 3, 11, 12, 33, 130 or 131, 140, 141, and 150, plus six credits taken among 132, 133, 134, or 137. Students may elect to participate in the Chicago Urban Semester Program as an integral part of this emphasis. Should students elect not to participate in the urban semester, 15 additional credits, including Sociology 151, are required. These credits may be selected from a broad variety of courses, subject to the approval of the director of the Criminal Justice Program. Concentration requirements may be completed through Individualized majors.

In addition to these majors, the department is willing to work with students who may be interested in other areas of service. By utilizing the individualized major in conjunction with courses in sociology and other related disciplines, programs in such areas as leisure and recreation or family life education may be developed. Such programs should be arranged in consultation with the chairperson of the department.

Minor. A minimum of 17 credits in sociology is required for a minor. Courses must include 1, 11, and 12, plus 6 credits taken above the Introductory Level.

Approval of Schedules. All students taking a major or minor in sociology should have their schedules approved by designated departmental advisers at the beginning of each semester. Normally, Sociology 11 and 12 will be taken in the sophomore year.

Introductory Level. Courses taught at the elementary level. No prerequisites.

Undergraduate Credit.

1. **Introductory Sociology.** Cr. 3. The analysis of the major institutions, structures, and processes of American society, as well as an introduction to the basic theoretical and methodological approaches of the discipline.

3. **The Criminal Justice System.** Cr. 3. A survey of the operations, functions, and interactions of the police, the courts, and corrections agencies, that is, social organizations which

respond to crime. Required for Criminal Justice emphasis.

5. Cultural Anthropology. Cr. 3. Study of the development and characteristics of culture, with emphasis upon the comparison of cultures in small-scale preliterate societies.

7. Human Growth and Development. Cr. 3. An analysis of human social development through stages of the life cycle. Emphasis given to the integration of theories from developmental psychology and sociology, stressing relationships between social institutions and the social development of individuals. Required of majors. Not open to students who have taken Psychology 140.

9. (Formerly 11). Social Problems. Cr. 3. Analysis of how social conditions come to be defined and handled as problems, leading into a survey of information about currently emphasized problems, evaluating them with sociological approaches.

Foundation Level Courses. Courses which build on Introductory Level courses, providing students with deeper insights into fundamental concepts and theoretical approaches. Prerequisite for Foundation Level courses is Sociology 1 or consent of the chairperson of the department.

11. (Formerly 101). Development of Sociological Theory. Cr. 4. Study of the historical development of sociological thought and the contributions of major theorists, along with an introduction to the logic of scientific inquiry and theory building in the social sciences. Required of all majors.

12. (Formerly 102). Research Methods in Sociology. Cr. 4. The construction of sociological hypotheses and a survey of the basic methods of testing them, with an introduction to pre-programmed modes of computer analysis. Required of all majors.

16. (Formerly 52). Culture and Personality. Cr. 3. The organization and content of culture and its significance for individual personality, considered from anthropological, sociological, and psychological perspectives.

22. Life Cycle I: Childhood and Adolescence. Cr. 3. Study of the developmental processes of childhood and adolescence, with emphasis upon the acquisition of language and role-playing abilities, and the social processes involved in the transition from infancy to young adult status.

23. Life Cycle II: Adulthood and Aging. Cr. 3. Examination of the social and developmental processes involved in the transition from young adulthood to the later stages of the life cycle. Emphasis given to the acquisition of adult roles and to the adjustments involved in occupational and family statuses.

26. (Formerly 51). The Family. Cr. 3. A study of the family as a basic social unit and institution, emphasizing the various forms and functions of the family. Special consideration is given to modern influences upon the interaction and organization of American family life.

33. Principles of Criminal Law. Cr. 3. An examination of the principles of criminal law. Intended for those who wish to work in the criminal justice system or to prepare for the study of law. Required for Criminal Justice emphasis.

Advanced and Specialty Level Courses. Courses designed to provide depth experience and understanding in narrow subject areas. Prerequisite: Sociology 1 or consent of the chairperson of the department. See individual course descriptions for other requirements.

Undergraduate and Graduate Credit.

100 (200). (Formerly 130-230). Social Structures. Cr. 3. Courses which focus on social phenomena involving structured or organized relationships among individuals, groups, processes, and sets of beliefs or values. Topics may range from informal and unplanned relationships to intentionally developed large scale organizations, and may include social class, urban structure, occupations, sex roles, leisure and recreation, etc. Prerequisite: junior standing or consent of the chairperson.

110 (210). (Formerly 150-250). Social Processes. Cr. 3. Courses which focus on processes of social influence, differentiation, development, control, or change. Topics may include socialization, collective behavior, death and dying, etc. Prerequisite: junior standing or consent of the chairperson.

120 (220). (Formerly 140-240). Social Institutions. Cr. 3. Courses which focus on socially shared beliefs and practices developed to deal with major social needs. Possible topics include religion, medicine, education, etc. Prerequisite: junior standing or consent of the chairperson.

130 (230). Criminology and Juvenile Delinquency. Cr. 3. An examination of the definition and extent of crime and delinquency, the theories used to explain crime, and a brief analysis of societal responses to crime and juvenile delinquency. Requirement option for Criminal Justice emphasis.

131 (231). Deviance. Cr. 3. An analysis of the definition and extent of deviance and an examination of theories of how people become deviants. Surveys the forms of deviation; crime, mental illness, drug or alcohol abuse, sexual deviation, etc. Requirement option for Criminal Justice emphasis.

132 (232). Probation and Parole. Cr. 3. A critical analysis of probation and parole, and other community field services, with an emphasis upon current trends. Prerequisite: junior standing or consent of the chairperson.

133 (233). Corrections. Cr. 3. A critical examination of prisons, jails, and community correctional services, with an emphasis upon current trends and issues. Prerequisite: junior standing or consent of the chairperson.

134 (234). Sociology of Law. Cr. 3. The study of the relationships between law and society, including the nature and functions of law in society, the relationship between law and social change, and the relationship between the law and other social institutions. Prerequisite: junior standing or consent of the chairperson.

137 (237). Law Enforcement. Cr. 3. An examination of policing at the local, state, and federal levels, from historical and contemporary points of analysis, with emphasis upon the relationship between law enforcement and other criminal justice agencies. Prerequisite: standing or consent of the chairperson.

140. Field Experience in Criminal Justice I. Cr. 3. Through a series of field trips and discussion seminars, students become acquainted with the variety of agencies in the criminal justice system. Required for Criminal Justice emphasis. Prerequisite: Sociology 33 or consent of the chairperson.

141. Field Experience in Criminal Justice II. Cr. 3. An extension of Sociology 140. Students observe professional activities in at least two criminal justice agencies. Analysis of organizational structure and agency-client relationships is stressed. Required for Criminal Justice emphasis. Prerequisite: Sociology 140 or consent of the chairperson.

150. Internship in Criminal Justice I. Cr. 3. Students are placed with one criminal justice agency and are required to observe and analyze it using concepts introduced in previous courses. Depending upon agency requirements and policies, students may be assigned a caseload or otherwise be expected to assist in agency operations. Required for Criminal Justice emphasis. Prerequisites: Sociology 141 and junior standing or consent of the chairperson.

151. Internship in Criminal Justice II. Cr. 3. Extension of 150. Intended primarily for students in the Criminal Justice emphasis who do not elect to participate in the Chicago Urban Semester. Prerequisites: Sociology 150 and junior standing or consent of the chairperson.

152. Internship in Sociology and Life Cycle Studies. Cr. 3. Students are placed in human service agencies for one semester and required to observe and analyze the agency, using concepts introduced in previous courses. As the students become familiar with the job requirements, they may be delegated some responsibilities (at the discretion of the agency). Prerequisites: Sociology 7 and junior standing or consent of the chairperson.

165. Non-Western and Third World Studies. Cr. 3. Selected topics in the analysis of non-Western cultures or major social problems viewed in cross-cultural context, for example: Peoples of the Pacific, The World of the Maya, or Class and Conflict in Peasant Societies. Intended for General Education credit.

170. (Formerly 185). Independent Study in Sociology. Cr. 3. Independent investigation of a specialized topic in sociology. May be taken more than once for credit if the topics are different or if the topics are to be continued.

189. (Formerly 190). Senior Seminar in Sociology. Cr. 3. A one semester reading and discussion seminar applying sociological approaches to current topics and issues. Required for all majors. Prerequisite: senior standing or consent of the chairperson.

SPEECH AND DRAMA

Professors

William C. Dallmann
Ph.D., Purdue University
Fred Sitton
Ph.D., Northwestern University

Associate Professor

Richard W. Pick (chairman)
M.F.A., University of Iowa

Assistant Professors

Dennis A. Guse
M.A., Indiana University
Judy L. Nantau
M.A., Western Michigan University
John S. Paul
M.A., University of Wisconsin at Madison

Professor Emerita

Vera T. Hahn

Major in Speech and Drama. A minimum of 30 credits in one of the following areas:

Speech Pathology. It is recommended that courses be chosen from the following: 20, 21, 22, 23, 24, 45, 120, 121, 122, 123, 124, 125, 128, and 143.

Theatre. Must include the following courses: 30, 31, 32, 33, 41, 138, and 139. This basic core will be supplemented by courses in the individual student's area of concentration: acting, production, or dramatic literature.

Communication. It is recommended that courses be chosen from the following: 20, 40, 41, 42, 44, 45, 140, 142, 143, 144, 146. Majors are also required to complete a 3 credit Senior Independent Project.

Speech-Drama. A major for teaching certification determined by the State Department of Education relative to rules 46 and 47. Areas of study will be determined by State requirements, Education Department, and Speech-Drama requirements.

Minor. A minimum of 15 credits constitutes a minor. Minor in one of the following will be directed by the advisers: Speech Pathology, Theatre, Communication, and Speech-Drama.

The University Theatre. Additional training and experience in acting and in dramatic production are provided by the University Theatre. (Further information concerning the University Theatre may be found on page 21 of this bulletin.) Since the University Theatre serves as a laboratory for courses in theatre, majors and minors are required to work a minimum number of hours on productions each year. The hours are to be determined by the departmental faculty.

The Speech Clinic. It is a service offered by the department to persons with communication disorders in the University and community and to foreign students. It also serves as a laboratory for the courses in speech pathology. Anyone interested in remedial speech work should consult the director of the clinic.

Forensics. Qualified students may participate in a variety of communication experiences. Students may participate in intercollegiate debate, individual speaking events, and interpretation events. Students participate in major Midwestern tournaments.

Approval of Schedules. All students majoring or minoring in speech and drama must have their schedules approved by the chairperson of the department at the beginning of each semester.

Undergraduate and Graduate Credit.

SPEECH PATHOLOGY.

20. Introduction to Speech Science and Phonetics. Cr. 3. A study of the international phonetic alphabet, an introduction to the processes of respiration and phonation, acoustics, the acoustic theory of articulation, and speech perception.

21. Anatomy and Physiology of Speech. Cr. 3. A study of the neurology of speech, the systems of respiration, phonation, articulation, and hearing, the endocrine and circulatory systems as related to speech. Offered in even-numbered years.

22. Introduction to Communicative Disorders. Cr. 3. A study of the nature and treatment of disorders of speech and language.

23. Observation of Clinical Practice. 0+2, Cr. 1. Students observe and study actual therapy. This course is an orientation in procedures of the Speech and Language Clinic and preparation for Clinical Practice. It should be taken in the semester immediately preceding Speech and Drama 125.

24. Introduction to Audiology. Cr. 3. A study of basic techniques of pure-tone and speech audiometry, anatomy and physiology of hearing, pathologies of the ear, and acoustics. Offered in odd-numbered years.

120. Articulation Disorders. Cr. 2-3. The diagnosis and treatment of functional and organic disorders of articulation. Offered in odd-numbered years.

121. Delayed Speech and Language Development. Cr. 2-3. The nature, assessment, and treatment of the delayed onset of speech and language development.

122. Disorders of Fluency. Cr. 2-3. The nature and treatment of stuttering and cluttering. Offered as announced.

123. Voice Disorders. Cr. 2-3. The diagnosis and treatment of functional and organic disorders of phonation. Offered as announced.

124. Aphasia. Cr. 2-3. The diagnosis and treatment of the impairment of symbolization caused by brain damage. Offered as announced.

125. Clinical Practice in Speech Pathology. 0+2 or 0+4, Cr. 1-2. Supervised clinical experience in the evaluation and treatment of communication disorders. Prerequisites: Speech and Drama 20, 21*, 22, 23, 24*, 120*, 143* and consent of the clinic director. *May be taken concurrently with Speech and Drama 125. May be repeated for credit.

128. Language Development. Cr. 3. The study of developmental psycholinguistics, including transformational grammar.

THEATRE.

30. Theatre Production. Cr. 2. Intensive studies in the technical areas of theatre including: Scenery—Scene Design—Lighting, Sound, and Props—Costumes and Makeup. These specific areas of study will be included in the time schedule. This course may be repeated once for credit if the material covered is not duplicated.

31. Theatre Practicum. Cr. 1-2. Creative work in technical production on plays in the University Theatre. Prerequisite: consent of the technical director. May be repeated once for credit.

- 32. Acting.** 2+2, Cr. 2. A basic course in the theory and technique of acting.
- 33. Acting.** 2+2, Cr. 3. A continuation of study in the theory and technique of acting. Prerequisite: Speech and Drama 32.
- 131. Play Directing.** 2+2, Cr. 3. The course includes a study of the art of directing, the problems of choosing the play, methods of casting, and rehearsal procedures. Students direct one-act plays for public performance. Prerequisite: Speech and Drama 30.
- 132. Advanced Acting.** 2+2, Cr. 3. An intensive study of characterization, ensemble playing, and acting techniques. Prerequisites: Speech and Drama 32 and 33.
- 134. Playwriting.** Cr. 2. A course devoted to creative writing experiences in the dramatic form. May be repeated once for credit.
- 135. The Development of Theatre Art.** Cr. 3. A slide/lecture course studying the development of theatre and performances from ancient ritual to the modern professional theatre.
- 136 (236). Contemporary Theatre and Its Literature.** Cr. 3. A study of the aesthetic and literary aspects of drama beginning with Beckett.
- 137 (237). Modern American Theatre and Its Literature.** Cr. 3. A survey of modern America drama from O'Neill through recent playwrights and the American musical theatre.
- 138 (238). Dramatic Form: Tragedy.** Cr. 3. A survey of the literature, history and theory of tragedy and melodrama from the ancient to the modern theatre.
- 139 (239). Dramatic Form: Comedy.** Cr. 3. A survey of the literature, history, and theory of comedy and farce from the ancient to the modern theatre.
- 191. The Teaching of Speech and Drama.** Cr. 2. (See Education 191.) A study of the methods of teaching speech and drama in the secondary schools. Prerequisite: admission to Supervised Teaching. This course may not be counted toward a major or minor in the department.
- 195. Projects in Speech and Theatre.** Cr. 1-3. A course offering talented students an opportunity to study intensively an area of theatre arts or communication. May be repeated once for credit.
- 196. Topics In Speech and Theatre.** Cr. 1-3. Selected topics based on special interest areas of students and faculty. Topics will be announced in advance. This course may be taken more than once for credit if the topics are different.
- 198. Contemporary Man in Drama.** Cr. 3. A search for the psychological, philosophical, and theological perspectives of humankind.

COMMUNICATION.

- 40. Public Communication.** Cr. 2. Fundamental principles of organization, generation of argument, use of language, and components of delivery for effective construction and performance of messages in a variety of speechmaking experiences.
- 41. Oral Interpretation.** Cr. 2. A basic course stressing the communication of thought and feeling from the printed page to the listener. Emphasis is on analysis, interpretation, and reading of drama, verse, and prose.
- 42. Introduction to Broadcasting.** Cr. 3. A study of the fundamental principles of broadcasting techniques, the history of broadcasting, and the social influence of broadcasting. A specific concern is to familiarize the student with FCC regulations, skills, and communication models for a better understanding of this specific mass communication. Each student is required to air a radio show on the campus radio station.
- 44. Argumentation and Debate.** Cr. 3. A study of advocacy through logical discourse. This course includes structured experiences in the research and development of argument, case construction, refutation, and evidence. The Lincoln-Douglas, cross-examination, and traditional debate formats are used.
- 45. Interpersonal Communication.** Cr. 3. A study of human communication dealing with intrapersonal, dyadic, small group, and nonverbal areas. Students participate in a variety of semi-structured and pre-structured communication events.
- 140. Rhetorical Thought.** Cr. 3. A study of the theories of rhetoric as a force in the political and intellectual development of Western cultures. This course includes selected theorists from Plato and Aristotle to Kenneth Burke.

142. Studies in the Mass Media. Cr. 3. A study of mass media forms and message concepts with an emphasis on the effects and influence of mass communication. Included in the course is an examination of communication theories and models relevant to the study of the effects and uses of the mass media.

143. Introduction to General Semantics. Cr. 3. A non-Aristotelian consideration of the relationships between language and human behavior, including an examination of pathological language usage.

144. Persuasion. Cr. 3. A study of motivational communication. This course includes theories of persuasion and offers structured experiences for the producer and consumer in the persuasive process.

146. Small Group Communication. Cr. 3. The study of theories and techniques of communication in small groups. This course includes a variety of experiences in group participation and leadership. Special emphasis is placed on group structure, the influence of the group on the individual, group participation, leadership functions, and group problem solving techniques.

THEOLOGY

Professors

Richard P. Baepfer (Theology and Law)

Ph.D., The University of Chicago

Thomas A. Droege (on leave)

Ph.D., The University of Chicago

Theodore R. Jungkuntz

Th.D., Friedrich Alexander University
(Erlangen)

Walter E. Keller (chairman)

Ph.D., University of Cambridge

Luther P. Koepke

S.T.D., Chicago Lutheran Theological
Seminary

Norman E. Nagel

Ph.D., University of Cambridge

Walter E. Rast

Ph.D., The University of Chicago

Associate Professors

James W. Albers

Th.D., Concordia Theological Seminary,
St. Louis

Daniel C. Brockopp

S.T.M., Lutheran School of Theology
at Chicago

Dale G. Lasky

Ph.D., The University of Chicago

Theodore M. Ludwig (on leave)

Th.D., Concordia Theological Seminary,
St. Louis

Ph.D., The University of Chicago

Edgar P. Senne

M.A., The University of Chicago

David G. Truemper

S.T.D., Lutheran School of Theology
at Chicago

Assistant Professors

Frederick A. Niedner, Jr.

Th.D., Christ Seminary-Seminex

Robert J. Weinhold

B.A., Concordia Theological Seminary,
St. Louis

Normand J. Widiger

B.A., Concordia Theological Seminary,
St. Louis

Visiting Instructors

Barbara A. Kloehn

B.A., Valparaiso University

James F. Moore

M.Div., Luther Theological Seminary

General Education. The General Education Requirement in religion at Valparaiso University is three courses of 3 credits each. These courses shall be taken from each of the first three levels indicated in the course listings below. All students are required to take the Level I course, ordinarily in their

freshman year. This must be followed by a course from Level II, ordinarily to be taken in the sophomore year. In either the junior or senior year, each student must take at least one course from the Level III or IV listings. Non-majors should select a course from Level III.

Major. A major in religion requires 30 credit hours of work in the department, 21 credits beyond the General Education Requirement.

Students who desire to earn a major in religion shall meet the following requirements: 1) Religion 5. Introduction to Christian Theology; 2) a course in biblical studies (10, 111-119); 3) a course in the history of the Church and its thought (20-30, 121-126, 131-139); 4) a course in contemporary religion and practice (40-50, 141-142, 151-158); 5) a course in the history of religions (60, 161-167); and, 6) a senior project, either Seminar (180) or Supervised Reading and Research (190). They shall also take four additional courses chosen in consultation with their departmental major adviser.

Minor. A minimum of 18 credits in religion, chosen by the student in consultation with the chairperson of the department, constitutes a minor. The General Education Requirement shall count toward the minor. At least three courses shall be taken at Levels III or IV.

Programs. The department provides undergraduate programs in three fields of professional church work: Studies in Diaconess Ministry, Preparation for Seminary Entrance, and a Church Worker Program. Enrollment in these programs is through the chairperson of the department, who arranges appropriate advising.

Approval of Schedules. All students taking a major or a minor in the department must have their schedules approved by the chairperson of the department at the beginning of each semester.

Undergraduate and Graduate Credit.

LEVEL I (ORDINARILY FRESHMAN YEAR)

This course is prerequisite for all other courses offered by the department.

5. Introduction to Christian Theology. Cr. 3. An introduction to the study of Christian theology, with attention to the religious question, basic biblical themes, central doctrines, ethics and worship.

LEVEL II (ORDINARILY SOPHOMORE YEAR)

Prerequisites for these courses are sophomore standing and satisfactory completion of Religion 5.

10. Literature of the Bible. Cr. 3. A study of the development of the two Testaments in the framework of the history of ancient Israel and early Christianity. Emphasis is placed upon key theological themes and on the literary types within these scriptures.

20. Formative Events in Church History. Cr. 3. A study of those events which shaped the Church's understanding of its nature and mission.

30. The Christian Faith. Cr. 3. A study of the formation and development of Christian creeds and doctrine.

40. Christian Ethics. Cr. 3. A study of norms for moral judgment and the dynamics for moral action in the light of the Christian faith.

50. The Church in the World. Cr. 3. A study of the life and mission of the church, with particular emphasis on movements for renewal, reform, and reunion, as well as on current events in church life.

60. History of Religions. Cr. 3. A study of major religions and of the ways in which they interpret the nature of reality and the divine/human relationship.

70. Theology and the Cultural Context. Cr. 3. A study of the way in which theology interprets basic elements of the Christian tradition in the context of modern cultural beliefs and questions.

LEVEL III (ORDINARILY JUNIOR OR SENIOR YEAR)

Prerequisites for these courses are one course at Level II and junior standing or above.

100. Topics in Theology. Cr. 3. As special circumstances and opportunities allow, certain unlisted courses may be announced under this listing. A student may receive credit for this course more than once, providing that the announced topics are different.

THE BIBLE AND ITS WORLD.

111. The Prophets of Israel. Cr. 3. A study of the role of the prophets in Israelite religion. Special attention is given to the historical origins of the prophetic movement, its impact on Israel's political, social and religious life, and the continuing significance of the prophetic message in Jewish and Christian thought.

112. Archaeology and Old Testament Interpretation. Cr. 3. A study of selected archaeological discoveries in the countries of the ancient Near East and their usefulness in interpreting the scriptures of Israel.

113. Jesus and the Gospels. Cr. 3. A comparative study of the New Testament gospels with a focus upon the uniqueness of each in its presentation of the story of Jesus.

114. Studies in Pauline Thought. Cr. 3. Studies in the life and thought of Saint Paul, focusing upon selected New Testament letters.

117. Psalms and Prayers of Ancient Israel. Cr. 3. A study of the prayers in the Book of Psalms, with attention to the language and dynamics of prayer. Use will be made of form-critical results in the study of the psalms.

118. David and the Kings of Israel. Cr. 3. An investigation of the Deuteronomistic History (Deuteronomy-2 Kings), with special attention to the period of the kingship and the importance of Jerusalem in the Old Testament.

119. The Books of Moses. Cr. 3. A study of the Pentateuch with emphasis on Israel's understanding of the beginning, the history of the patriarchs, the exodus, the wilderness wanderings, and the preparation for entering the land.

CHURCH HISTORY.

121. The American Religious Experience. Cr. 3. An investigation of American religious thought with special emphasis on the interaction between religion and cultural development.

122. History of Lutherans in America. Cr. 3. A survey of the history of American Lutherans from colonial times to the present, with an emphasis on the nineteenth century immigrations and twentieth century trends.

123. History of Women in the Church. Cr. 3. An investigation from biblical times to the present of theological understandings of women's roles in Christian religious communities and of the cultural contexts that shape such attitudes and practices.

124. History of Christianity Since the Reformation. Cr. 3. A study of the history of Christianity from 1650 to the present.

125. Early Christianity. Cr. 3. A study of major events, themes and developments in the history of the church in the period beginning with the ministry of Jesus and the Apostles and ending ca. 500.

126. Reformation Christianity. Cr. 3. A study of the impact of the theology of the Protestant Reformers on the church with special emphasis on the work of Martin Luther.

CHRISTIAN THOUGHT.

131. Life and Thought of Martin Luther. Cr. 3. A study of the life of Martin Luther and the structure of his thought.

132. Theology of the Lutheran Confessions. Cr. 3. A study of the historical background and doctrinal content of the confessions of the Lutheran Church.

134. Comparative Christianity. Cr. 3. An examination of various Christian denominations in the light of their history and confessions.

136. Trends in Twentieth Century Theology. Cr. 3. A survey of twentieth century theology, including a study of major currents and of representative works of particular theologians or schools of thought.

CONTEMPORARY ETHICAL ISSUES.

141. Introduction to Bio-Ethics. Cr. 3. A study of the moral issues raised by modern advances in medicine and biological research (e.g., abortion, euthanasia, genetic engineering and health care). Attention will be given both to general ethical theory and to the analysis of particular issues.

142 (242). Christian Faith and Contemporary Politics. Cr. 3. A study of how different Christian thinkers have understood the nature and function of government and the relation of the Christian faith to political action.

CHURCH AND MINISTRY.

155 (255). Principles and Forms of Worship. Cr. 3. A study of the principles and language of worship with emphasis on the theology of worship, ritual, the role of tradition, and the relationship between worship and contemporary culture.

156. Christian Response to Social Victims. Cr. 3. A study of theological resources and possible strategies for individuals to become involved in serving the victims of such social problems as aging, poverty, deteriorating neighborhoods, criminal justice, alcoholism and physical handicaps.

157. Church and Crisis of the Eighties. Cr. 3. An examination of the church's past experience and its theological resources in order to anticipate and cope effectively with potential social crises (e.g., unemployment, undocumented aliens, racial tensions, global injustice).

158. (Formerly 173). Spiritual Needs and Health Care. Cr. 3. Study and practice in the assessment of the spiritual needs of patients and in providing appropriate care in meeting those needs within the context of medical treatment. Open only to students in nursing or in a program of preparation for the medical arts, or with consent of the instructor.

HISTORY OF RELIGIONS.

161. Studies in Judaism. Cr. 3. Studies of selected topics in Judaism: biblical, rabbinic, and contemporary. A student may receive credit for this course more than once, providing that the announced topics are different. (These offerings are sponsored in part by the Jewish Chautauqua Society.)

162. Understanding Islamic Religion and Culture. Cr. 3. The study will focus upon the life of Muhammad, the teachings of the Quran, traditional practices and institutions in Islamic society, and the significant contemporary developments in the Muslim world.

163. Religions of China and Japan. Cr. 3. A study of the religious worldview of China and Japan, seen both in the traditional folk religious practices and in the organized religions of Confucianism, Taoism, Buddhism and Shinto. Special attention is given to the expressions of religion in art and to the role of religion in modern China and Japan.

164. The Buddhist Tradition. Cr. 3. A study of the origins of Buddhism in India, its expansion into and influence upon the cultures of Southeast Asia, its special adaptations in China and Japan, and the Buddhist presence in the United States today. Attention is given to the varieties of Buddhist teaching and practice.

165. Religion in Africa. Cr. 3. A study of religion in Sub-Saharan Africa. Attention is given to the nature and function of religion in the traditional societies and to the modern developments of Christianity and Islam in Africa.

166. Studies in Mythology. Cr. 3. A study of myth as a primary expression of the experience of the religious dimension of existence. Central to the concern of this course is the interpretation of the "living myths" of traditional societies (rather than the classical mythologies of Greece and Rome) such as creation myths and myths of initiation.

167. Encounter with Non-Christian Religious Movements in America. Mini Session Only. Cr. 3. A study of some of the non-Christian religious groups currently active in the United

States, such as Baha'i, Hare Krishna Society, Zen Buddhism, and the Unification Church (i.e., the "Moonies"). Wherever possible, the study of each group is approached through its origin in one of the living world religions. At least one field trip is included.

CHRISTIANITY AND CULTURE.

171 (271). Theology and the Human Sciences. Cr. 3. An investigation of areas of common interest in the fields of Christian theology and the social or personality sciences.

172. Christianity and Humanism. Cr. 3. A study of the Christian dialog with and response to contemporary humanism, with special emphasis upon understanding the positive contribution of the atheism implicit in some of its forms.

174. Christian Faith and Modern Literature. Cr. 3. An exploration of the meaning of Christian faith in dialog with modern literature, particularly with a view toward understanding the human condition and discovering implicit religious dimensions in representative novels and plays.

175. Understanding Death and Dying. Cr. 3. An exploration of the biblical meaning of death in relation to contemporary cultural meanings. Each student will be encouraged to consider the meaning of his/her own death. Special attention will be given to the care of the dying.

LEVEL IV

These courses are designed primarily for majors. Prerequisites are one course at Level II and junior standing or above.

115. Introduction to the Bible: Old Testament. Cr. 3. A study of the history and theology of the Old Testament with attention to the role of the Old Testament in Christian faith. (Not normally open to students who have completed Religion 10.)

116. Introduction to the Bible: New Testament. Cr. 3. A study of the history and theology of the New Testament with attention to its rootage in the Old Testament. Prerequisite: Religion 115.

133. The Lutheran Doctrinal Tradition. Cr. 3. A study of Lutheran doctrinal theology and its transmission from the Reformation era to the present, with special reference to its reception and development in American Lutheranism.

138 (238). Systematic Theology I. Cr. 3. A study of the nature and task of systematic theology, emphasizing questions of prolegomena and method for theology in a secular context.

139 (239). Systematic Theology II. Cr. 3. Continuation of Religion 138 (238) emphasizing the constructive task of contemporary systematic theology, and studying the structure and content of the Christian faith. Prerequisite: Religion 138 or consent of the chairperson of the department.

151. Deaconess Work. Cr. 3. A study of various aspects of Deaconess ministry, care, and counseling. This course may not be used to fulfill the religion requirements for general education, the minor, or the major.

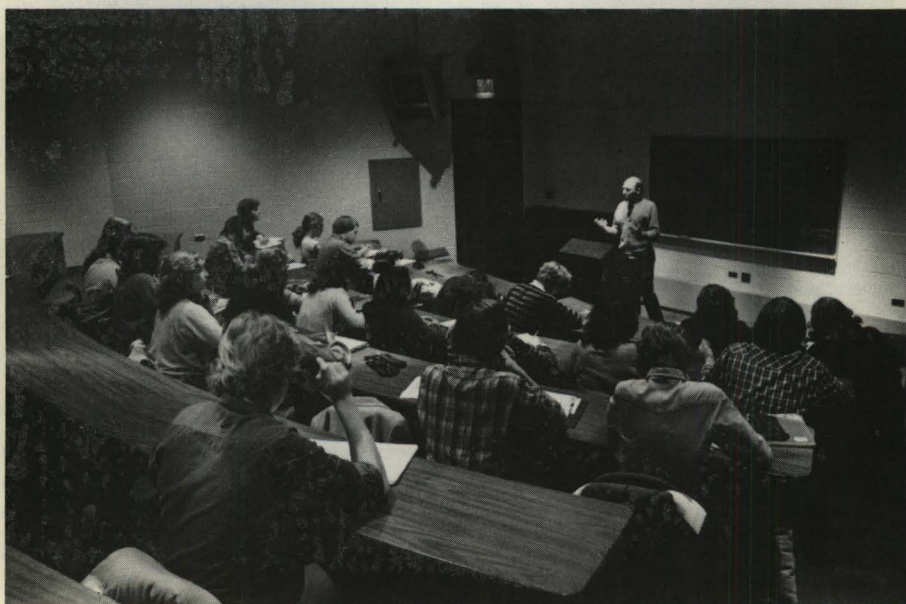
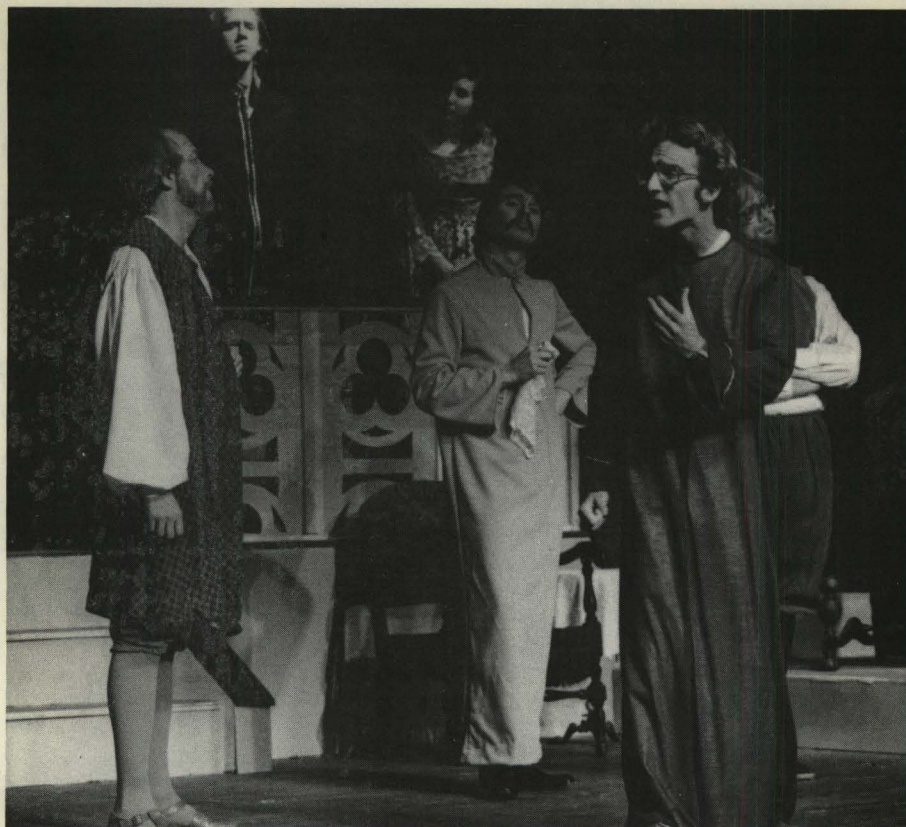
153. Clinical Deaconess Education. Cr. 3. A carefully supervised practicum in ministry to the physically ill and the elderly. This course is designed principally for senior Deaconess students. Offered on S/U basis. May not be used to fulfill the religion requirements for general education, the minor, or the major.

154. Practicum in Ministry. Cr. 3. Field experience in various local agencies, together with reflection on the work being done. This course may be taken only as an elective for a maximum of 6 credit hours. Offered on S/U basis only. Arranged with the chairperson of the department.

180. Theology Seminar. Cr. 3. Advanced study of selected areas or issues in the discipline of theology. Varied listings to be announced. Prerequisites: senior standing and consent of the chairperson of the department.

190 (290). Supervised Reading and Research. Cr. 1-3. An opportunity for students to read a number of significant works on a given topic in theology, or to do research on a topic which is not covered in any scheduled course offerings of the department and to write a major paper. Prerequisites: junior standing, 12 semester hours in religion, and consent of the chairperson of the department.

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CHRIST COLLEGE

Meyer

Arlin G. Meyer, Ph.D.
Dean

Professors

Arlin G. Meyer
Ph.D., Ohio University
Marcus E. J. Riedel
(at Reutlingen Center)
Ph.D., The University of Chicago
Warren G. Rubel
Ph.D., University of Arkansas

Associate Professors

Richard W. Lee (at Cambridge Center)
Rel.D., The School of Theology
at Claremont
Walter M. Reiner
M.A., Roosevelt University

Assistant Professors

William R. Olmsted
Ph.D., The University of Chicago
Mel W. Piehl
Ph.D., Stanford University
Zachary S. Schiffman
Ph.D., The University of Chicago
Sue E. Wienhorst
M.A., The University of Chicago

Visiting Lecturer

Axel von Criegern (Art and Humanities)
Ph.D., Eberhard-Karls Universität
(Tübingen)

ORGANIZATION. Christ College is an Honors College emphasizing liberal studies and providing a place in undergraduate study for courses and programs which implement honors standards and offer the freedom and flexibility for educational experimentation.

The College shares the general purposes of Valparaiso University. Its membership is drawn from the University's four undergraduate colleges in which each student is completing a normal specialized program. Through these colleges a university degree will be granted with the added honors designation "Christ College Scholar" or "Christ College Associate" for students who at the same time have met the requirements of Christ College.

The program of courses offered by Christ College replaces many of the general education courses required of all students by the University. This program, supplemented by additional seminar work, invites its students to inquire beyond their specialized interests into larger contexts of thought, action and production, encouraging thereby the exploration of values and the integration of knowledge. Such liberal studies are an excellent preparation for many professions. Personal and intellectual growth of high quality is fostered by a resident staff which works closely with small numbers of students.

Above all, Christ College encourages the restlessness of the seeker who desires to know things as they are and whose thought and imagination have been captured by some vision of things as they might be under the grace of God and the exertions of human will and intelligence.

To achieve these purposes Christ College provides: a variety of planned programs and supervised study leading to a student's graduation with the honors designation "Christ College Scholar" or "Christ College Associate"; one or more comprehensive Freshman Programs which approach general education experimentally at the level of honors work and fulfill part of the University's General Education Requirements; a range of courses and programs, largely experimental or interdisciplinary in nature, which do not naturally fall into the traditional division of work among the regular departments; co-curricular experiences, including lectures and conferences designed to foster a reflective and civilized style of life as well as involvement in the problems of modern society; opportunities to work out a theology of life and vocation; and a new physical setting which facilitates immediate relationships between students and faculty as well as communication among the traditional divisions of knowledge.

THE FRESHMAN PROGRAM. The Program is a network of activities designed to capitalize on the educational opportunities arising from a series of carefully designed general studies. The Program is offered to a relatively small group of freshmen who are willing to invest more of themselves in the academic enterprise than might normally be required of them. Small classes, tutorial work, and an experimental flair characterize the multi-disciplinary work of the Program.

Students are admitted into the Program upon approval of their applications for admission. The application form, which is available through the Dean's Office, asks that a student provide evidence of his/her ability to profit from the Program, together with an expression of his/her personal intellectual goals. Since a limited number of students can be accepted for the Program, the Christ College staff will choose its registrants from among the applicants.

The Program is planned as a two-semester sequence and carries eight hours of academic credit per semester. The successful completion of the Program satisfies part of the General Education Requirements of the student's college. Students from the professional colleges as well as from the College of Arts and Sciences are enrolled in the Program. A further description of it is available through the office of the Dean of the College.

ADMISSION AND MEMBERSHIP. Any student at Valparaiso University is welcome to enroll in the courses offered by Christ College, subject to the approval of the instructor of the course. Students who wish to become members of the College may apply for admission beginning with their sophomore year but no later than the middle of their junior year. Students admitted to the College are designated "Members of Christ College." Since such students are at the same time enrolled in another University college, they are jointly advised by their departmental adviser and their Christ College adviser.

In admitting students, consideration will be given to the interests and goals of the student, his/her academic achievement and promise, and evidence of his/her initiative, originality, creativity or qualities of leadership.

Once admitted to membership, a student's status is periodically reviewed by the faculty to determine whether the student is satisfying the standards and requirements of the College. These requirements include satisfactory academic progress toward the College's stated goals and contribution to the common life of the College and the University. Even when a student is not directly involved in the courses offered by the College, he/she shall contribute to the College's common life, partly through the relationship with the adviser and partly through membership in the Christ College Symposium which meets periodically during each semester at a regularly scheduled hour. He/She may further contribute by assisting in teaching; opportunities for instructional assistance shall be arranged particularly for senior students.

The faculty takes an interest in the total program of each member. Accordingly it may authorize certain variations in the normal academic requirements of a student if such variations seem desirable. For example, it may permit him/her to carry additional hours, to waive prerequisites for advanced courses, to acquire academic credit through examination, and to waive certain University requirements if such waivers are justified. In general, the faculty may tailor the student's program to meet the interests and needs within the general framework of the University's objectives.

Membership in Christ College is never terminated by the mechanical application of arbitrary criteria such as grade-point average or the student's academic record for a particular semester. In general, Christ College students should expect to maintain an average grade of B or better, but in every case the judgment of whether a student should be admitted, retained, or readmitted as a member of the College will be made only after thorough consideration of the probable best interests of the student.

A member of Christ College may graduate as a "Christ College Scholar" or a "Christ College Associate." The particular requirements of each designation are stated below. The transcript of each graduate will carry this designation together with an explanation of its meaning.

Members of the College will normally be required to meet, by course examination or other evidence of qualification, the regular requirements for graduation except where explicitly modified. The faculty of Christ College may recommend such adjustments in these requirements as are in the spirit of the University's requirements and in the best interests of the students.

CHRIST COLLEGE SCHOLAR. The requirements for graduating with this designation are:

- 1) Membership in Christ College for a minimum of three semesters;
- 2) Twenty-five hours of work in courses in the College at a grade average of at least B. Students who have completed part or all of the Freshman Program need offer only twenty-one additional hours;
- 3) Humanities 105 and 106;
- 4) Three courses in Christ College taken during the junior and senior years. These courses shall be either junior-senior seminars or tutorial and independent study work taken under the auspices of the College. Students enrolled in an off-campus program of the University may petition to waive one of these three courses. Of the three courses, one shall be the Senior Honors Seminar which shall not be waived except for extraordinary reasons;
- 5) One course in religion sponsored by Christ College; and
- 6) An appropriate independent study project. This shall not count as one of the three required junior-senior courses referred to in 4, above.

CHRIST COLLEGE ASSOCIATE. The requirements for graduating with this designation are:

- 1) Membership in Christ College for a minimum of three semesters;
- 2) Sixteen hours of work in courses in the College at a grade average of at least B. Students who have completed part or all of the Freshman Program need offer only twelve additional hours;
- 3) Humanities 105 or 106;
- 4) The Senior Honors Seminar;
- 5) One course in religion sponsored by Christ College; and
- 6) An appropriate independent study project.

***URBAN SEMESTER.** The following courses are offered in a residential program in Chicago in cooperation with the Associated Colleges of the Midwest:

Urban Studies	138	The City and Its Systems	6 credits
Urban Studies	150	Power and Justice	4 credits
Liberal Studies	194	Independent Study Project	3 credits

Students shall be admitted to this program on the recommendation of an appropriate committee. This program is scheduled to be offered for the school year of 1981-1982.

SPECIAL PROGRAM IN THE HUMANITIES. A student with a first major in any department of the College of Arts and Sciences may earn a second major in an interdisciplinary study of the humanities. This combination comprises the Special Program in the Humanities.

The aim of the Program is an increased knowledge of the human world and the acquisition of skills leading to the enjoyment and understanding of a wide range of imaginative and intellectual works.

The courses in the Program focus on a variety of works and ideas such as lyric poetry, various kinds of argument, analyses of the symbolic structures of society and significant concepts found in scientific literature. These courses cultivate the arts of interpretation and judgment which may be applied to texts as well as to events in social and political life. This activity leads to further reflection on central cultural problems of our time, so that the student is encouraged to make an independent effort to assess statements of facts and test values among competing contemporary and traditional claims.

A brochure offering detailed information on this Program is available in the Dean's Office. A brief outline of the study plan follows:

I. A major concentration approved by any department in the College of Arts and Sciences.

II. Interdisciplinary major in the Humanities.

Note: As background for this major, students should develop historical perspective, some appreciation of the fine arts, and some insight into the relation of theology and the imagination before or during their formal work in the Program. Members of Christ College who have taken the College's freshman-sophomore offerings should also take an appropriate art or music course and upper division religion course related to this program as approved by his adviser. Students who have not taken the lower division program in Christ College should take History 5 and 10; or Philosophy 51 and 53; or English 147 and 148 in addition to the art or music course and the religion course mentioned above.

A. Core Sequence.

1. Humanities 150: Interpretation in the Humanities.
2. Humanities 155: Literature, Religion, and Modernity.
3. Liberal Studies 198: Senior Honors Seminar.

*S/U basis only.

B. Supplementary Courses. Each student will select three courses from Liberal Studies 191, Humanities 160, 170, and 180. Selection of specific seminars or sequences of seminars will be determined through advising and continued review of the student's program.

C. Independent Study (Humanities 186). A three-credit independent study resulting in an essay on an approved topic. A study proposal is to be submitted by the end of the spring term of the junior year. The Special Program in the Humanities may also serve as a nucleus or coordinated portion of the "individual program of studies" or an "individualized major." The Special Program may be taken as an academic minor; the minor shall consist of sixteen hours, including Interpretation in the Humanities. Any of the 160-180 seminars may be taken individually or in combination by any student, subject to the instructor's permission.

Undergraduate Credit.

FRESHMAN PROGRAM.

Christ College 30. Texts and Contexts I: An Introduction to Western Thought. Cr. 8. This course offers an opportunity for the intensive study of great works in the Western tradition through the sixteenth century. The close reading of primary texts is accompanied by a survey of the wider aspects of the historical epoch or milieu appropriate to each text. Readings are drawn from the areas of history, literature, philosophy, and religion. Advisory grades (A, B, C, D, F) will be given throughout the semester but the final grade will be S/U.

Christ College 40. Texts and Contexts II: An Introduction to Western Thought. Cr. 8. A continuation of Christ College 30. The first seven weeks focus on the seventeenth through nineteenth centuries. The second seven weeks are devoted to seminars on topics drawn from the modern period. Each student conducts a major investigation of a problem to be formulated in the seminars.

***URBAN SEMESTER (CHICAGO).**

Urban Studies 138. The City and Its Systems. Cr. 6. An introduction to the history of the city and to various methods of studying and perceiving urbanism. The major part of this interdisciplinary course proposes to study, through systems analysis, selected sub-systems of the city of Chicago, such as housing, work, transportation, and communication. This course is offered only in Chicago and includes field work experience.

Urban Studies 150. Power and Justice. Cr. 4. Social and ethical analysis is brought to bear on a particular problem selected from that contemporary urban scene.

GENERAL PROGRAM.

Humanities 105. Common Readings I. Cr. 4. A study of selected literary and intellectual texts, with special attention given to the interpretive problems arising in a pluralistic culture. Prerequisite: Christ College 40 or English 5.

Humanities 106. Common Readings II. Cr. 4. A study of the relationship between literature and Western cultural traditions. Primary emphasis will be on the function and significance of classic works within their historical milieu and on the evaluative impact of subsequent transformations in taste, styles of representation, and belief structures. Prerequisite: Christ College 40 or English 5.

Religion 100. Theology and Ethics in the New Testament. Cr. 3. An introduction to central theological and ethical themes of major New Testament writings. Some attention is given to problems of modern biblical scholarship.

Religion 180. Issues in Contemporary Christian Thought. Cr. 3. A study of contemporary Christian writers and the issues they deal with in their effort to relate the Christian faith to modern culture.

*S/U basis only.

Philosophy 101. Philosophy of the Arts and Sciences. Cr. 3. An exploration of the liberal arts and their use in the study of various subject matters.

Liberal Studies 140. Special Topics. Cr. 2-3. Each year Christ College will offer courses, often in the form of seminars and open to sophomores, juniors, and seniors in the University, dealing with themes of social, intellectual, or artistic importance. These courses will ordinarily be multidisciplinary in nature. Topics dealt with in the past and likely to be repeated in the future include:

Art and Aesthetic Judgment
Science, Technology, and Public Policy
Changing American Lifestyles
History of Socialist Economic Thought

Theology and the Imagination: Comedy
Law, Society, and Medicine
Religion and Politics
Law and Society

Liberal Studies 155. Tutorial Studies: Topic. Cr. 2-4. A course of studies arranged by a professor and one or more students. S/U grade optional. Open only to members of Christ College. Prerequisite: consent of the Dean.

Liberal Studies 185. Christ College Symposium. Cr. 0. A periodic occasion for presentation and discussion of items and topics of special interest to members of the Christ College community. S/U grade.

Liberal Studies 191. Inquiry in the Liberal Arts. Cr. 3. A course in the theory and practice of the liberal arts. Students in this course will collaborate with instructors as tutorial assistants in other courses offered by the College. S/U grade.

Liberal Studies 194. Independent Study Project: (Area of concentration.) Cr. 2-6. A special independent study project for which there are no provisions for independent work in the student's major area of concentration. Approval of the project must be obtained from the chairperson of the department concerned and the Dean of the College. Only under special circumstances may a student register for this course in a regular Summer Session. However, under certain circumstances, some credit may be assigned for a portion of the work done during the summer months.

Liberal Studies 198. Senior Honors Seminar. Cr. 4. A seminar offered under the supervision of the faculty of Christ College. The purpose of the course is twofold: 1) to examine a selected number of texts from a variety of disciplinary perspectives; and 2) to allow students to relate their disciplinary independent study projects to the humanities and/or liberal arts. Required of Christ College seniors.

Public Affairs 100. The Legal Process. Cr. 3. A study of leading legal concepts, methods of legal reasoning and the function of the law in the social and economic order. Prerequisite: consent of the Dean.

Public Affairs 130. The Philosophy of Public Discourse. Cr. 4. A study of the classical liberal arts of language and an examination of their use in selected classical and popular examples of discourse about the public and its affairs. Prerequisite: consent of the Dean.

Public Affairs 135. Public Affairs Seminar. Cr. 3. Application of the arts of inquiry, invention, and judgment to a selected issue currently under public discussion. The approach is interdisciplinary from the standpoint of involving several academic and professional fields and of shaping new questions for research and policy formation. Topics of seminars offered in the past include: The Modern City; Philosophy and Public Affairs; The American Right Wing.

SPECIAL PROGRAM IN THE HUMANITIES.

Humanities 150. Interpretation in the Humanities. Cr. 4. An introductory study of interpretive problems in the humanities. Primary attention will be given to the theory and practice of interpretation, particularly in relating interpretation to authorial or artistic intention, varying subject matters, and differing audience expectations. Required for humanities majors.

Humanities 155. Literature, Religion, and Modernity. Cr. 3. An examination of religious elements in the rhetoric and style of modern writers. Topics include religion and rhetoric, the religious symbol, esthetics of religious art. Prerequisite: consent of the Dean.

Humanities 160. Humanities Seminar. Cr. 3. A study of a particular topic (e.g., Christian Humanism, Politics and the Novel, Technology and Culture) on the basis of works selected from the various fields of the humanities. Prerequisite: consent of the Dean.

Humanities 170. Humanities Seminar. Cr. 3. A study of representative persons whose work and life have had a significant influence in the Western Tradition (e.g., Dostoevsky, Freud, Goethe, Kant, Aristotle). Prerequisite: consent of the Dean.

Humanities 180. Humanities Seminar. Cr. 3. A study of the thought, sensibility, and social context of a particular period (e.g., The Medieval Experience, The Romantic Movement, Images of the Twenties) through an examination of selected works from the period. Prerequisite: consent of the Dean.

Humanities 186. Independent Study. Cr. 3. A course of study arranged by the student with an instructor. The study will comply with requirements and options for independent study as described under the Special Program in the Humanities.

Humanities 195. Value and Judgment in the Humanities. Cr. 3. A study of evaluative problems encountered in assessing the significance of selected texts and/or works in the performing or fine arts the student has reflected on in his/her undergraduate experience.



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**COLLEGE OF
BUSINESS ADMINISTRATION**

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Richard H. Laube, Ph.D.
Dean

F. Barry Haber, Ph.D.
Associate Dean

ORGANIZATION. The College is a separate administrative and instructional unit of the University under the direction of the Dean of the College and offers three majors: Accounting, Administrative Sciences, and Business Economics. Course offerings in Administrative Sciences are structured to permit limited concentrations in marketing, finance, personnel-organizational behavior, and general management.

OBJECTIVES. This College, as an integral part of Valparaiso University, shares and endorses the philosophy and the general objectives of the University.

The increasing size and complexity of business organizations and the changing economic, political, legal, and social environment requires that business students learn to approach problems from the viewpoint of many disciplines. Recognizing the dynamics of our contemporary environment, the faculty in the College of Business Administration advocates a philosophy of education characterized by the broad and the fundamental and supports a teaching methodology oriented towards the analytical rather than predominating in the descriptive. The curriculum in general education assures each student exposure to a broad range of disciplines, problem-solving techniques, and methods of inquiry. The business curriculum likewise aims at exposing students to opportunities which help develop concepts, tools of analysis, and techniques of evaluation which serve as a foundation for their growth into competent and ethically responsible administrators and functional specialists. Such a philosophy is particularly appropriate for undergraduate education for business, which, though it properly concerns itself with preparation for occupational life, must also concern itself with life in general.

CURRICULA. Three four-year curricula are offered which lead to the degree of Bachelor of Science in Business Administration. Building upon the knowledge gained in the general education component, a business core provides background in the production and marketing of goods and/or services and the financing of the business enterprise. The student becomes familiar with accounting and quantitative methods that have application to the solution of business problems. Attention is given to ethical and social issues that confront modern business organizations within an integrative, capstone policy determination experience. In addition to taking certain prescribed courses in the core, the student must complete a major in: Accounting, Administrative Sciences, or Business Economics. The requirements for a major are set forth in the curricula described below.

Each of the three curricula requires that the student devote approximately one half of his/her time to required and elective courses in the liberal arts. The required courses include English, religion, the natural sciences, mathematics, the social sciences, and physical education. The liberal arts electives may be chosen from any of the natural sciences, humanities, languages, or social sciences. The student will normally choose elective courses in those areas which provide both diversity and support to his/her educational back-

ground. Specific details concerning the prerequisites for courses in the liberal arts will be found in the announcements of the College of Arts and Sciences.

STUDENT ORGANIZATION. All students in the College are eligible for membership in The Association of Business Students. This association offers the student the opportunity for development through field trips, a guest speaker program, special faculty lectures, and participation in other extracurricular activities.

OMICRON DELTA EPSILON. This international honor society recognizes undergraduate students for their scholastic attainment in the area of economics. Its objectives are to establish closer ties between students and faculty and to encourage discussion on economic topics. Students who have completed twelve credits of economics with an average of 3.00 or better and have a similar average in their overall scholastic work are eligible for membership. The Delta Indiana Chapter was established at Valparaiso University in 1969.

CHI BETA ALPHA. This local honor society was established in 1979 to recognize students for academic achievement in the college. Membership is limited to a small percentage of junior and senior students.

ADMISSION. The general requirements for admission to the University are found on page 23 of this bulletin.

ADVANCEMENT TO UPPER DIVISION. For advancement to upper division courses, a College of Business Administration student must complete a minimum of 56 credit hours in the freshman and sophomore years with an overall minimum cumulative grade point average of 2.0. In addition, the student must complete all or all but one of the following courses (or their equivalent) designated as the lower division business curriculum:

Mathematics 36 or 52	4 credits
Administrative Sciences 50 (GLM)	3 credits
Accounting 52	4 credits
Accounting 55	3 credits
Administrative Sciences 62 (GLM)	3 credits
Economics 71 and 72	6 credits
	<hr/> 23 credits

A student must achieve a grade of C— (1.7) or better in each of the above designated lower division business courses; an exception in one course grade may be allowed. These standards also apply to University students selecting the General Business Sequence in the College of Business Administration.

TRANSFERS. Students currently enrolled at Valparaiso University and wishing to transfer into the College of Business Administration from other University colleges must meet the above academic standard for advancement to upper division work. For the transfer to occur within the lower division level, a minimum cumulative grade point average of 1.7 must be demonstrated. The calculation of the minimum grade point average will be based only on courses which fulfill degree requirements in the College of Business Administration.

Freshman or sophomore transfers from other institutions who have completed business course work designated as upper division (100-199) in our bulletin will not automatically receive upper division transfer credit. Evaluation of such credit will be made by the Dean's office. Any course work in business and economics completed at other colleges or universities with a grade of D+ (1.3) or less will not carry transfer credit.

GRADUATION REQUIREMENTS. To be eligible for the degree of Bachelor of Science in Business Administration, a student must complete one of the three prescribed curricula found on page 157, 158, or 160. In addition, the student must demonstrate a minimum cumulative grade point average of 2.0 in all course work and in the major (all business courses) and meet all the additional requirements for graduation set by the University (see page 214 of this bulletin). In addition, a student must receive a grade of no lower than C- in each upper division course of the College of Business Administration used to fulfill the requirements of a major or concentration.

No credits earned in secretarial studies or developmental reading will be counted. Only twelve semester credits earned in the College of Engineering or Nursing may count towards the degree of Bachelor of Science in Business Administration.

MINOR. A student is allowed to declare a minor in the College of Arts and Sciences, provided that no more than six hours of specified courses required for the business administration program are used in fulfilling the requirement of a minor. The minor will be noted on the student's official academic record.



†ACCOUNTING CURRICULUM.*Credits***FRESHMAN STUDIES.**

THEO 5	Introduction to Christian Theology	3
ENGL 5	Exposition and Argument	3
HIST 5	History of Western Thought and Society	3
FS 5	Freshman Seminar	3
Total		12

ACADEMIC AREA STUDIES.

	Religion	6
ENGL 25	Literary Studies	4
	Non-Western or Third World Studies	3
	Social Analysis**	3
	Natural Science	4
MATH 51	Finite Mathematics and Precalculus*	4
MATH 52	Intuitive Calculus of One or More Variables*	4
	Physical Education	2
Total		30

INTEGRATIVE STUDIES.

UC 100	University Course****	3
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OTHER NON-BUSINESS.

ECON 71-72	Principles of Economics: Micro-Macro	6
ENGL 57	Business Communication	3
CS 37	Algorithms and Basic Programming I	3
	Economics (120-130 series)	3
	Liberal Arts Elective ***	3
Total		18

Total Non-Business 63

BUSINESS CORE.

ADM 50	GLM: Statistics	3
ACC 52	Financial Accounting	4
ACC 55	Managerial Accounting	3
ADM 62	GLM: Legal Environment of Business	3
ADM 101	FNM: Financial Management	3
ADM 101	GLM: Management of Organizations	3
ADM 101	MKM: Marketing Management	3
ADM 101	POM: Quantitative Decision Methods	3
ADM 195	GLM: Business Policy and Social Issues	4
Total		29

MAJOR REQUIREMENTS.

ACC 102	Intermediate Financial Accounting I	3
ACC 104	Intermediate Financial Accounting II	3
ACC 105	Cost Accounting and Production Control	3
ACC 152	Advanced Accounting I	3
ACC 163	Federal Income Tax I	3
ACC 177	Accounting Information Systems	3
ACC 189	Auditing	3
ADM 167	GLM: Business Law	3
CS 64	File Processing Using Cobol	3
Total		27

UNRESTRICTED ELECTIVES

6

Grand Total 125

†ADMINISTRATIVE SCIENCES CURRICULUM.**FRESHMAN STUDIES.**

THEO 5	Introduction to Christian Theology	3
ENGL 5	Exposition and Argument	3
HIST 5	History of Western Thought and Society	3
FS 5	Freshman Seminar	3
Total		12

ACADEMIC AREA STUDIES.

	Religion	6
ENGL 25	Literary Studies	4
	Non-Western or Third World Studies	3
	Social Analysis**	3
	Natural Science	4
MATH 35 or 51	Finite Mathematics*	4
MATH 36 or 52	Intuitive Calculus*	4
	Physical Education	2
Total		30

INTEGRATIVE STUDIES.

UC 100	University Course****	3
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OTHER NON-BUSINESS.

ECON 71-72	Principles of Economics: Micro-Macro	6
ENGL 57	Business Communication	3
CS 37	Algorithms and Basic Programming I	3
	Economics (120-130 series)	3
	Liberal Arts Elective***	3
Total		18

Total Non-Business

63

BUSINESS CORE.

ADM 50	GLM: Statistics	3
ACC 52	Financial Accounting	4
ACC 55	Managerial Accounting	3
ADM 62	GLM: Legal Environment of Business	3
ADM 101	FNM: Financial Management	3
ADM 101	GLM: Management of Organizations	3
ADM 101	MKM: Marketing Management	3
ADM 101	POM: Quantitative Decision Methods	3
ADM 195	GLM: Business Policy and Social Issues	4
Total		29

MAJOR REQUIREMENT.

ADM 151	POM: Production-Operations Management	3
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CONCENTRATION REQUIREMENTS.

Select one of the following options (A-D):

Marketing Management (A)

Two courses selected from two areas below:

- | | | |
|----|---|----------|
| 1. | Finance courses | 3 |
| 2. | Personnel-Organizational Behavior courses | 3 |
| 3. | ADM 152 POM: Management Information Systems | 3 |
| | | <u>6</u> |

ADM 133	MKM: Sales Management	3
ADM 134	MKM: Marketing Research	3
ADM 135	MKM: Buyer Behavior	3
ADM 137	MKM: Marketing Policies	3
		<u>12</u>
	Total	18

Financial Management (B)

Two courses selected from two areas below:

- | | | |
|----|---|----------|
| 1. | Marketing courses | 3 |
| 2. | Personnel-Organizational Behavior courses | 3 |
| 3. | ADM 152 POM: Management Information Systems | 3 |
| | | <u>6</u> |

ADM 161	FNM: Working Capital Management	3
ADM 162	FNM: Financial Strategy and Policy	3
ADM 163	FNM: Investment Management	3
ADM 165	FNM: Management of Financial Institutions OR	
ADM 166	FNM: International Finance	3
		<u>12</u>
	Total	18

Personnel-Organizational Behavior (C)

Two courses selected from two areas below:

- | | | |
|----|---|----------|
| 1. | Marketing courses | 3 |
| 2. | Finance courses | 3 |
| 3. | ADM 152 POM: Management Information Systems | 3 |
| | | <u>6</u> |

ADM 101	HRM: Human Resource Management	3
ADM 142	HRM: Wage and Salary Administration	3
ADM 143	HRM: Organizational Behavior	3
ADM 145	HRM: Labor-Management Relations	3
		<u>12</u>
	Total	18

General Management (D)

Five courses selected from among:

(Maximum 2 courses per area)

- | | | |
|----|---|-----------|
| 1. | Marketing courses | 3-6 |
| 2. | Finance courses | 3-6 |
| 3. | Personnel-Organizational Behavior courses | 3-6 |
| 4. | ADM 152 POM: Management Information Systems | 3 |
| | | <u>15</u> |

Total 15

UNRESTRICTED ELECTIVES

12-15

Grand Total 125

†BUSINESS ECONOMICS CURRICULUM.

FRESHMAN STUDIES.

THEO 5	Introduction to Christian Theology	3
ENGL 5	Exposition and Argument	3
HIST 5	History of Western Thought and Society	3
FS 5	Freshman Seminar	3
Total		12

ACADEMIC AREA STUDIES.

	Religion	6
ENGL 25	Literary Studies	4
	Non-Western or Third World Studies	3
	Social Analysis**	3
	Natural Science	4
MATH 35 or 51	Finite Mathematics*	4
MATH 36 or 52	Intuitive Calculus*	4
	Physical Education	2
Total		30

INTEGRATIVE STUDIES.

UC 100	University Course****	3
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OTHER NON-BUSINESS.

ECON 71-72	Principles of Economics: Micro-Macro	6
ENGL 57	Business Communication	3
CS 37	Algorithms and Basic Programming I	3
	Economics (120-130 series)	3
	Liberal Arts Elective***	3
Total		18

Total Non-Business 63

BUSINESS CORE.

ADM 50	GLM: Statistics	3
ACC 52	Financial Accounting	4
ACC 55	Managerial Accounting	3
ADM 62	GLM: Legal Environment of Business	3
ADM 101	FNM: Financial Management	3
ADM 101	GLM: Management of Organizations	3
ADM 101	MKM: Marketing Management	3
ADM 101	POM: Quantitative Decision Methods	3
ADM 195	GLM: Business Policy and Social Issues	4
Total		29

MAJOR REQUIREMENTS.

ADM 151	POM: Production-Operations Management	3
ECON 122	Intermediate Macro-Economic Theory	3
ECON 123	Economic Fluctuations and Forecasting	3
ECON 124	Managerial Economics	3
ECON 126	International Economics	3
ECON 130	Industrial Organization OR	
ECON 131	Government Regulation of Business	3

ECON 145	Econometrics	3
		Total 21

UNRESTRICTED ELECTIVES

12

Grand Total 125

S/U grading is permitted in courses listed as Freshman, Area, and Integrated Studies except Math 36 and 52 or their substitutes.

Advisement. Advisement for students admitted to the college is under the direction of the Dean's office. Each student in the college is assigned a full-time business faculty adviser to assist him/her with educational and career objectives. In addition, the assistant to the dean assists freshmen and sophomores to select courses and helps them to interpret the requirements for orderly progress toward the degree.

Suggested Freshman and Sophomore Program.

FRESHMAN

First Semester		Second Semester	
Natural Science	4	Religion 5	3
English 5	3	Freshman Seminar 5	3
Mathematics 35 or 51	4	Mathematics 36 or 52	4
Computer Science 37	3	History 5	3
Physical Education 10	1	Liberal Arts Elective	3
Credits 15		Credits 16	

SOPHOMORE

First Semester		Second Semester	
Administrative Sciences 50 (GLM)	3	Administrative Sciences 62 (GLM)	3
Accounting 52	4	Accounting 55	3
Economics 71	3	Economics 72	3
Religion	3	English 25	4
Social Analysis	3	Non-Western or Third World Studies.....	3
Physical Education 10	1	Credits 16	
Credits 17			

A freshman or sophomore need not decide immediately on a program of study. Through exposure to a wide selection of courses in general education and business, the selection of a major can be made on a more informed basis.

Calculators In Business Courses. Students are allowed to use a calculator in all business courses and examinations except where the manual processing of data is important to later test conditions such as the public accounting examination.

†A transfer student may apply a maximum of 6 credits in religion from his/her advanced standing to the religion requirement. Otherwise, a transfer student with more than 45 credits but less than 75 credits of advanced standing need complete two courses (6 credits) of religion at Valparaiso University. A transfer student with 75 credits or more of advanced standing need complete one course (3 credits) of religion at Valparaiso University.

*Or the appropriate equivalents. Students who place out of mathematics requirements should consult with the Dean of the College regarding remaining mathematics requirements and appropriate substitute courses.

**Economics courses may not be used to fulfill this requirement.

***Applied music and economics courses may not be used to fulfill this requirement.

****Any approved course except Home Economics 115.

ACCOUNTING

Professors

F. Barry Haber, C.P.A.
Ph.D., Arizona State University
Janet L. Sievers, C.P.A.
M.B.A., The University of Chicago

Associate Professor

James F. Ehrenberg, C.P.A. (chairman)
M.S., Northern Illinois University

Assistant Professor

Richard E. Svetanoff, C.P.A.
M.S.T., DePaul University

Part-Time Instructor

Mary Martin
M.S., Indiana State University

Lecturer in Taxation

Albert W. Dogan, C.P.A.
B.S., Indiana University

The program in accounting is offered for students who have demonstrated an interest in, and an aptitude for, quantitative analysis. The curriculum is recommended as basic preparation for a career as a Certified Public Accountant (CPA) or Certified Management Accountant (CMA). Students interested in a career in industry vis-à-vis public accounting should elect supportive course work in organizational behavior and economics.

Undergraduate Credit.

1. Accounting Principles I. 3+1, Cr. 3. The course develops and applies the fundamental principles and procedures of accounting to the single proprietorship, partnership, and corporate forms of business enterprise. Not offered as of 1981-1982.

2. Accounting Principles II. 3+1, Cr. 3. A continuation of Accounting 1. Prerequisite: Accounting 1 or the equivalent. Not offered after 1981-1982.

***52. (Formerly 1 and 2). Financial Accounting.** Cr. 4. A study of basic accounting theory and practice; nature of assets and equity; income measurement; financial statement preparation.

55. (Formerly 103). Managerial Accounting. Cr. 3. Emphasis on the internal use and analysis of accounting data by management. Introduction to budgeting, cost behavior, accounting systems, cost-volume-profit relationships and pricing decisions. Prerequisite: Accounting 52.

102. (Formerly 17). Intermediate Financial Accounting Theory I. Cr. 3. An intensive study of accounting theory related to assets and their interrelationship with income measurement. Emphasis on applicable AICPA Opinions and FASB Statements and Interpretations. Prerequisites: Accounting 55 and Mathematics 52.

104. (Formerly 18). Intermediate Financial Accounting Theory II. Cr. 3. A continuation of Theory I (Accounting 102) with concentration on liabilities, capital structure, income determination, and changes in financial position. Emphasis on applicable AICPA Opinions and FASB Statements and Interpretations. Prerequisite: Accounting 102.

105. (Formerly 105 and 106). Cost Accounting and Production Control. Cr. 3. Cost accounting theory and practice: job order, process, and standard cost systems including the study of production operations. Prerequisite: Accounting 55.

127. Accounting for Not-for-Profit Organizations. Cr. 3. A study of accounting and financial reporting for nonprofit organizations including governmental, university, hospital, social welfare and other applicable organizations. Prerequisite: Accounting 102.

152. (Formerly 109). Advanced Accounting I. Cr. 3. Accounting problems in business acquisitions, consolidated statements, diversified companies, interim reporting, and partnerships. Prerequisite: Accounting 104.

*Credit for Accounting 52 may be earned through the College Level Examination Program (CLEP) subject examination in Introductory Accounting.

154. (Formerly 110). Advanced Accounting II. Cr. 3. Intercompany profits, changes in equity, pooling vs purchase, international accounting and special advanced topics. Prerequisite: Accounting 152.

156. (Formerly 116). Topics in Accounting Theory. Cr. 3. A critical examination of accounting theory through intensive study of current literature and recent authoritative releases affecting the public accounting profession. Prerequisites: Accounting 152 and senior standing.

163. (Formerly 113). Federal Income Tax Accounting I. Cr. 3. Concepts of taxation and taxable income. Interpretation and application of present tax laws as they pertain to individual taxpayers, corporations, and partnerships. Prerequisites: Accounting 52 and senior standing or permission of instructor.

165. (Formerly 114). Federal Income Tax Accounting II. Cr. 3. Emphasis on tax planning for partnerships, corporation, and fiduciaries; tax administration and research. Prerequisite: Accounting 163.

177. (Formerly 115). Accounting Information Systems. Cr. 3. Analyzing, designing, and evaluating computer-based and manual accounting information systems. Prerequisites: Accounting 55 and Computer Science 37 and 64.

189. (Formerly 117). Auditing. Cr. 3. A study of auditing principles with primary emphasis on the independent public accountant's attest function. Audit goals, working papers, and problems of legal liability are covered. Prerequisites: Accounting 152 and senior standing.

195. (Formerly 107). Accounting Problems. Cr. 3. An intensive study of accounting problems related to assets, liabilities, capital structure and income measurement. Prerequisites: Accounting 152 and senior standing.

196. Independent Study. Cr. 1-3. An independent research effort. Requires approval of a research proposal by the student's adviser and the department chairperson before registration will be allowed. May not be used as a substitute for which a course covering the proposed research area is available. Prerequisites: approved research proposal and permission of the department chairperson.

ADMINISTRATIVE SCIENCES

Professors

Wilbur H. Hutchins
J.D., University of Toledo
Richard H. Laube
Ph.D., University of Nebraska
David S. Luecke
Ph.D., Washington University
William E. Schlender (on leave)
Ph.D., Ohio State University
Raymond B. Wilson
D.P.A., George Washington University

Associate Professors

Raymond J. Buckley (chairman)
Ph.D., Northwestern University
Robert J. Listman
Ed.D., Northern Illinois University

Assistant Professors

Robert L. Hoadley
M.B.A., Loyola University
J.D., Valparaiso University
Jill L. Long
M.B.A., Indiana University
Michael L. Robinson
M.B.A., Loyola University
Frank Slaby, Jr.
M.B.A., Indiana University

Professor Emeritus

Erwin E. Goehring

The programs in Administrative Sciences, combining a major/concentration, are designed for students planning careers in marketing, finance, personnel, and general management.

Undergraduate Credit.

MARKETING MANAGEMENT (MKM).

***101. (Formerly 31). MKM: Marketing Management.** Cr. 3. Emphasis is placed upon the application of marketing concepts, theories, and principles which relate to product policy, promotional mix decisions, distribution and logistical planning, and pricing. The areas of buyer analysis, utilizing marketing information systems, as well as the subsequent area of market planning and analysis are stressed.

131. (Formerly 132). MKM: Retailing. Cr. 3. A study of the contemporary environment of the retailing industry with emphasis on techniques utilized in store location, merchandising, promotion, and control. Prerequisite: Administrative Sciences 101 (MKM).

132. (Formerly 133). MKM: Advertising. Cr. 3. An introductory level course taught from a marketing management perspective. The areas of market analysis, campaign planning and strategy, media selection and design of advertisements are emphasized. The legal environment of advertising and the role of the different service institutions, such as advertising agencies, are also covered. Prerequisite: Administrative Sciences 101 (MKM).

133. (Formerly 134). MKM: Sales Management. Cr. 3. A study of the managerial functions of sales managers with the emphasis on field and territorial management, recruitment, and training of the sales force. Sales forecasting techniques, routing, variance analysis, and personal selling principles will also be included. Prerequisite: Administrative Sciences 101 (MKM).

134. MKM: Marketing Research. Cr. 3. Six major areas comprise this course: the design of a marketing information system and a review of the overall research process; a determination of sources of information and research design; a review of the methods of collecting data and the design of data collection forms; sample design and data collection procedures, statistical analysis and interpretation of the data; and compiling the research report. Prerequisites: senior standing, Administrative Sciences 101 (MKM) and 50 (GLM).

135. (Formerly 137). MKM: Buyer Behavior. Cr. 3. An analysis of the psychological, social and economic influences which affect attitude formation and decision making processes of organizational, household and industrial buyers. An overview of the research methods used for determining characteristics of buyers will be included. Prerequisites: Administrative Sciences 101 (MKM) and 50 (GLM).

137. (Formerly 131). MKM: Marketing Policies. Cr. 3. Capstone marketing course primarily for students seeking a concentration in Marketing. Taught from a marketing management perspective involving case analysis of both profit and non-profit organizations. Emphasis on decisions in the areas of product policy pricing, distribution and promotional mix. Prerequisite: senior standing in the College.

FINANCIAL MANAGEMENT (FNM).

101. (Formerly 61). FNM: Financial Management. Cr. 3. A survey of the principles of finance from the viewpoint of the manager. The course will cover current asset management, capital budgeting, sources of long and short-term financing, money and capital markets, failure and reorganization, and cost of capital. Prerequisites: Accounting 52 and 55.

160. (Formerly 60). FNM: Risk Management. Cr. 3. Course will emphasize the management of pure risk, i.e., areas where an event may cause a loss but does not provide an opportunity for gain. Areas covered will include risk analysis and alternatives for treatment of risk. Risk analysis will include property and liability risk, life and health risk, employee benefits, selection of insurers, and international risks. Treatment of risk would include risk transfer (insurance, self-insurance, and subcontracting), risk reduction (loss control), and risk assumption through deductibles, funding, and captive insurance companies. Prerequisites: Administrative Sciences 50 (GLM) and 101 (FNM).

161. FNM: Working Capital Management. Cr. 3. An analysis of the working capital problems of a business enterprise. Topics covered are liquidity, working capital strategy, financial planning, cash management, receivables management, short-term financing, payables and accruals management and financial control. Prerequisites: Administrative Sciences 101 (FNM), 50 (GLM) and 101 (POM).

*Credit for Administrative Sciences 101 (MKM) may be earned through the College Level Examination Program (CLEP) subject examination in Introductory Marketing.

162. FNM: Financial Strategy and Policy. Cr. 3. An analysis of the financial strategy of the firm in regard to investment in long-term assets, long-term sources of financing, and management of equity. Evaluation of the risk and return of various financial strategies and policies will be emphasized. Prerequisites: Administrative Sciences 101 (FNM), 50 (GLM) and 101 (POM).

163. FNM: Investment Management. Cr. 3. A survey of various investment media such as common stocks, bonds, preferred stocks, options, collectibles, commodities, etc. The risk and return characteristics of these investments will be analyzed as well as an investigation of investment strategy. Prerequisites: Administrative Sciences 101 (FNM) and 50 (GLM).

165. FNM: Management of Financial Institutions. Cr. 3. A study of the management of various types of financial institutions such as commercial banks, insurance companies, savings and loan associations, credit unions, and investment bankers. General management problems and policies of these institutions as well as asset and liability management will be covered. Prerequisites: Administrative Sciences 101 (FNM) and 50 (GLM).

166. FNM: International Finance. Cr. 3. This course will analyze the international aspects of financial management. Will include topics such as foreign exchange risk, financing international trade, financing the multinational enterprise, financial planning and control of international operations, international asset management, and international money and capital markets. Prerequisites: Administrative Sciences 101 (FNM), 50 (GLM) and 101 (POM). Economics 176 is also suggested.

PERSONNEL-ORGANIZATIONAL BEHAVIOR (HRM).

101. (Formerly 41). HRM: Human Resource Management. Cr. 3. A study of the fundamental concepts related to the effective utilization of human resources in organizations. Organizational and individual perspectives are examined. Prerequisite: junior standing.

142. HRM: Wage and Salary Administration. Cr. 3. The concepts and principles of establishing and maintaining effective and equitable compensation for employees. Prerequisite: Administrative Sciences 101 (HRM).

143. (Formerly 26). HRM: Organizational Behavior. Cr. 3. A study of the behavioral aspects of organizations, including the interactions between individuals, between individuals and organizations, with special attention to the implications of organizational behavior for managers. Prerequisite: Administrative Sciences 101 (HRM).

145. HRM: Labor-Management Relations. Cr. 3. Employer-employee relations relating to unions, the negotiations of collective bargaining agreement, contract administration, grievance procedure and arbitration, wage determination and inflation. Prerequisite: Administrative Sciences 101 (HRM).

PRODUCTION-OPERATIONS MANAGEMENT (POM).

101. (Formerly 23). POM: Quantitative Decision Methods. Cr. 3. An introduction to the use of management science techniques in managerial decision making processes, including: linear programming, network analysis, decision theory, queuing theory, dynamic programming, and Markov Processes and others. Prerequisite: Administrative Sciences 50 (GLM).

151. (Formerly 51). POM: Production-Operations Management. Cr. 3. Close study of the production-operations (conversion) sub-system of various types of enterprises. Further development of the application of management science techniques. Prerequisite: Administrative Sciences 101 (POM).

152. (Formerly 24). POM: Management Information Systems. Cr. 3. Study of the concepts and application of information systems to managerial decision making. Includes topics such as systems theory, data base concepts, data analysis and management, managerial interfaces and control. Prerequisites: Administrative Sciences 101 (POM) and Computer Science 37.

GENERAL MANAGEMENT (GLM).

***50. (Formerly 22). GLM: Statistics.** Cr. 3. A course in the elements of statistical inference and the application of statistical methods to business problems. Content includes descriptive statistics, probability theory and probability distributions, tests of hypotheses, nonparametric statistics, analysis of variance, and regression and correlation. Prerequisite: Mathematics 36 or 52.

*Credit for Administrative Sciences 50 (GLM) may be earned through the College Level Examination Program (CLEP) subject examination in Statistics.

51. GLM: Personal Finance. Cr. 3. A study of the factors involved in managing personal financial planning. Primary emphasis will be given to the areas of investment, insurance, housing, budget, credit, financing major purchases and estate planning. No prerequisite for this topic. Not applicable to any major course requirements.

***62. GLM: Legal Environment of Business.** Cr. 3. A survey of the various segments of the legal sector which have significant influence on business structures and functions.

****101. (Formerly 21). GLM: Management of Organizations.** Cr. 3. This basic course exposes the student to the complexities of the manager's milieu, including: the societal sectors; organizations; the manager within the organization; the organization within the various sectors; the work of the manager and personal requirements of managers. Prerequisite: junior standing.

111. (Formerly 121). GLM: Small Business Management. Cr. 3. Study and applications of the essential managerial factors of various types of small business, including organizational, environmental, and personal factors. Exposure to sources of information and assistance for the small businessperson. Prerequisites: Administrative Sciences 101 (GLM), 101 (MKM), and 101 (FNM).

112. (Formerly 122). GLM: Small Business Institute. Cr. 3. Practicum in which the student participates as a member of a team of student consultants on actual small business cases referred by the Small Business Administration. Enrollment limited by the number of cases referred by the agency (SBA). All consultant activities are performed by the students, under general supervision of the faculty coordinator. Prerequisites: Administrative Sciences 111 (GLM) and approval of the SBI Coordinator.

126. GLM: Business and Modern Society. Cr. 3. An analysis of our business system and its interrelationships with other institutions in our pluralistic society; mutual influence of ethics, changing value systems and business behaviors; social responsibilities of the corporate citizen. Prerequisite: senior standing in the College. Not offered after 1981-1982.

127. GLM: Ethics in Business. Cr. 3. An analysis of moral bases for ethical decision and behavior's ethical aspects of business leadership, contemporary business conduct examined in an ethical context. Prerequisite: senior standing in the College.

167. (Formerly 63). GLM: Business Law. Cr. 3. A study of partnerships, corporations, and personal and real property including landlord and tenant relationships. Prerequisite: Administrative Sciences 62 (GLM).

169. GLM: Business Law: Topics. Cr. 3. Detailed examinations of topics concerning the legal sector and its relationship to business. To be offered only as appropriate. Prerequisite: Administrative Sciences 167 (GLM).

193. GLM: Topics in Management. Cr. 3. Detailed examination of selected topics pertinent to the field of management. To be offered when sufficient interest and staffing are available. Prerequisites: senior standing in the College and permission of the department chairperson.

195. GLM: Business Policy and Social Issues. Cr. 4. Capstone Business course; development of the administrative perspective of management, establishing and analyzing policy and strategy in various settings, including the relationships between administrative decision making and important social issues. Case method and computer simulation are used. Prerequisites: senior standing in the College and completion of the CBA core.

196. GLM: Independent Study. Cr. 1-3. An independent research effort. Requires approval of a research proposal by the student's adviser and the department chairperson before registration will be allowed. May not be used as a substitute for which a course covering the proposed research area is available. Prerequisites: approved research proposal and permission of department chairperson.

*Credit for Administrative Sciences 62 (GLM) may be earned through the College Level Examination Program (CLEP) subject examination in Introductory Business Law.

**Credit for Administrative Sciences 101 (GLM) may be earned through the College Level Examination Program (CLEP) subject examination in Introduction to Business Management.

BUSINESS ECONOMICS

Associate Professor

Edward H. Heinze
Ph.D., Fordham University

Assistant Professor

James K. O'Toole
M.A., University of Detroit

In cooperation with the Department of Economics in the College of Arts and Sciences, the College of Business Administration offers a major in Business Economics under the Bachelor of Science in Business Administration degree. The following courses are the required courses from the Department of Economics for this major. Elective courses for this major may be drawn from the department's listings on pages 62-63.

Undergraduate Credit.

122. (Formerly 187). Intermediate Macro-Economic Theory. Cr. 3. A critical examination of theories of national income determination and of techniques for measuring and analyzing aggregate economic activity. Prerequisites: Economics 71 and 72.

123. Economic Fluctuations and Forecasting. Cr. 3. Techniques of forecasting utilizing national income and financial market statistics. Use of trend analysis techniques, multiple regression, and econometric model building. Emphasis on applications of macroeconomics to both government and business policy making over time. Prerequisites: Economics 71 and 72 and Administrative Sciences 50 (GLM).

124. (Formerly 175). Managerial Economics. Cr. 3. A course in applied economics which emphasizes the use of microeconomics, statistics, and decision-theory in the process of making managerial decisions. Using problems and short case studies, topics such as estimating demand, cost and profit analysis, forecasting, capital budgeting, and location analysis will be discussed. Prerequisites: Economics 71 and 72 and Administrative Sciences 50 (GLM) or the equivalent.

126. (Formerly 176). International Economics. Cr. 3. A study of the basis for the gains from international trade including the effects of growth and development on a nation's welfare. Attention is also given to the effects of tariffs and other restrictions to trade. Balance of payments accounting, foreign exchange markets and international monetary institutions are covered during the last part of the course. Prerequisites: Economics 71 and 72.

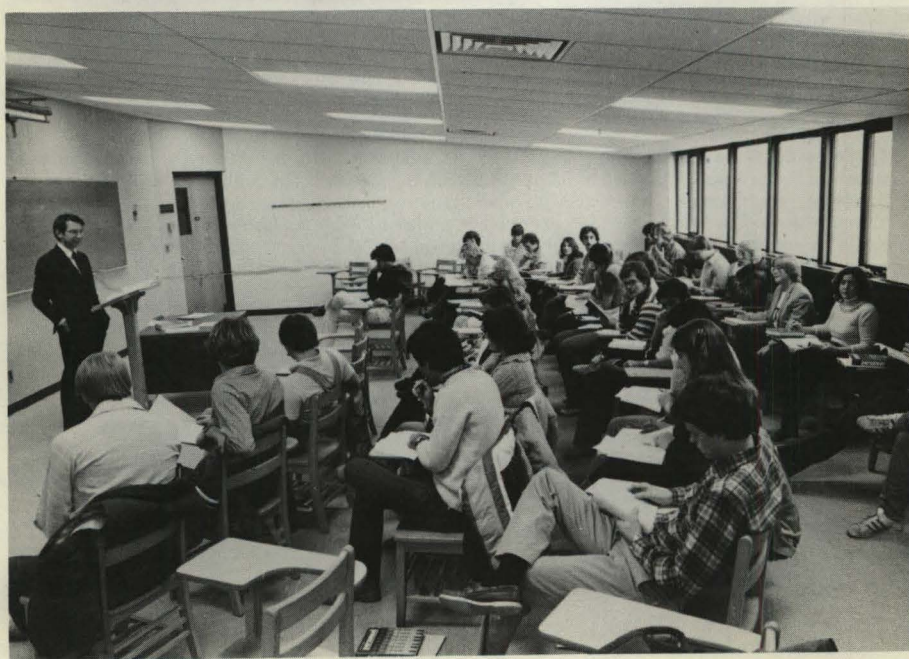
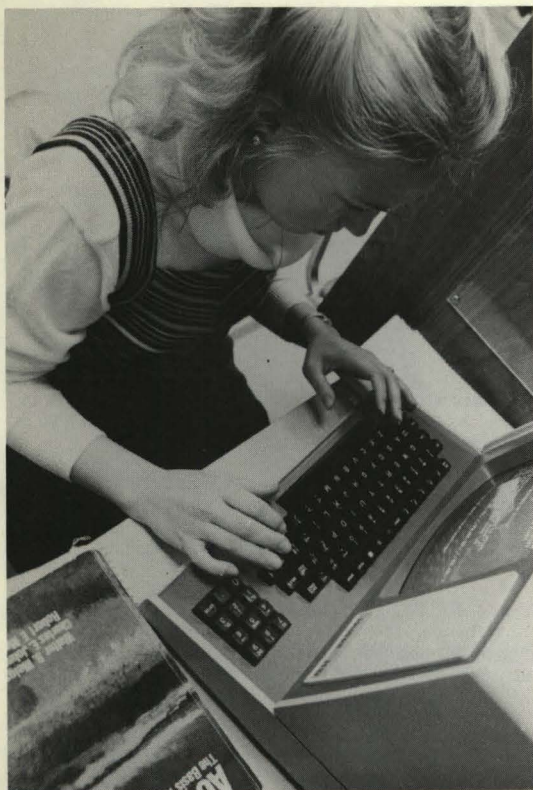
130. (Formerly 170). Industrial Organization. Cr. 3. The analysis of the economic factors underlying the structure, conduct, and performance of American industry. Prerequisites: Economics 71 and 72.

131. (Formerly 171). Government Regulation of Business. Cr. 3. A survey of government regulations of private business, monopoly and unfair competition with emphasis on health and safety regulations, consumer and environmental protection. Utilizing basic economic analysis, attention will be given to how regulation affects individuals and firms, the costs and benefits to society of regulation and the alternatives to the present approaches to regulation. Prerequisites: Economics 71 and 72.

145. (Formerly 88). Econometrics. Cr. 3. The application of mathematical and statistical techniques to the analysis of economic problems. This includes the study of nonparametric statistical tests, single and multiple regression models and computer applications. Prerequisites: Economics 71 and 72, Mathematics 36 or 52 or 72, and Administrative Sciences 50 (GLM) or equivalent.



PT



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**COLLEGE
OF
ENGINEERING**

James T. Scroggin, Ph.D.
Dean

GENERAL INFORMATION. As early as 1873 Civil Engineering was taught at Valparaiso University. The College of Engineering was established in 1920 with full, four-year programs in Civil, Electrical, and Mechanical Engineering. During World War II, with the shortage of men, the program was temporarily reduced to two years at Valparaiso University followed by the final two years at Purdue University. After the war, engineering was reinstated to four years through the initiative of the students who collected funds and then designed and built a new engineering building. Degrees were granted in 1951. In 1968 the College of Engineering moved into the newly-constructed Gellersen Engineering-Mathematics Center. This modern building, located on the east edge of campus, contains all the offices, classrooms, and laboratories of the College of Engineering.

LOCATION. The University's location, approximately fifty miles from the heart of Chicago and a short distance from the Calumet and St. Joseph Valley industrial areas of Indiana, provides opportunity for close contact with industry through inspection trips. Student members of the professional engineering societies are welcome at meetings of the parent societies in the area.

OBJECTIVES OF AN ENGINEERING EDUCATION. The College recognizes the responsibility to offer a program which is a strong professional program in Engineering, yet broad in liberal arts and communication skills. The College of Engineering, being an integral part of the University, gives the student an opportunity to participate in all phases of University life. Consistent with the University objectives of inculcating the Christian ethic, it is important for the engineer to have a proper perspective of social, moral, and ethical issues in contemporary society. Such a perspective can be achieved only by full participation in the academic, social, cultural, and spiritual life of a Christian university.

ORGANIZATION. The College constitutes a separate administrative and instructional unit of the University and is under the direction of the Dean of the College. It is organized into the Departments of Civil Engineering, Electrical Engineering, and Mechanical Engineering. The College places emphasis on offering an outstanding undergraduate program.

ACADEMIC PROGRAM. The programs of the College prepare the student for direct entry into an engineering profession or for graduate school. The first one and one-half years are designed to give the student a good general education, including a firm foundation in mathematics and the physical sciences. During the following two and one-half years, the student receives a broad education in the particular field of engineering that is chosen. In the senior year, the student has the option to select courses oriented toward graduate school or design courses oriented toward professional engineering. All programs contain extensive laboratory work which demonstrates practical applications and supports the theory learned in the classroom. In addition, each senior student completes an independent study project in an area of personal interest. These projects require the solutions to engineering problems supplied by industrial and consulting firms, by the student, or by the faculty.

One-fourth of the engineering program is devoted to non-technical course work. These courses taken throughout the four years include religion, literature, English composition, public speaking, and several electives. The academic program and participation in the life of the University help the student mature socially, spiritually, and professionally.

CURRICULA. Four-year curricula are offered leading to the degrees of Bachelor of Science in Civil, Electrical, and Mechanical Engineering. These programs are accredited by the Accreditation Board for Engineering and Technology.

The College is a member of the Accreditation Board for Engineering and Technology and an institutional member of the American Society for Engineering Education.

PLANT AND FACILITIES. The College of Engineering is located in the Gellersen Engineering-Mathematics Center. This building was made possible through the generosity of the late William A. Gellersen of Oakland, California, and contains the offices, classrooms, and laboratories of the College as well as the offices, classrooms, and computer center of the closely-related Department of Mathematics and Computer Science of the College of Arts and Sciences.

The Laboratories of Civil Engineering.

Materials Testing Laboratory. This laboratory contains equipment necessary to conduct investigations of the behavior of real engineering materials under static, impact, and cyclic loading conditions. This equipment includes both mechanical and hydraulic universal testing machines with capacities up to 60,000 pounds for applying tensile, compressive, torsional, and flexural loads. Fatigue testing machines are also available for applying alternating direct stress and/or bending stress to test specimens or to actual machine or structural components. In addition, instrumentation is available for measuring and recording the deformation and deflection resulting from the applied load.

Fluid Mechanics Laboratory. This laboratory contains apparatus for instructional use and senior project research including a large subsonic wind tunnel, tilting flume, impulse turbine, pipe network, centrifugal pump test stand, Hele-Shaw unit, Reynolds apparatus, a set of instructional films, and extensive supporting apparatus.

Environmental Engineering Laboratory. This laboratory is equipped with apparatus required for physical, chemical, and bacteriological analyses of air, water, waste water, and solid wastes. The laboratory is also equipped to handle individual investigation and research studies by the students and staff in the field of environmental engineering.

Concrete and Soil Mechanics Laboratory. This laboratory contains the equipment required for conducting the ASTM standard tests on Portland cement, aggregates, cement and masonry products, and soil as an engineering material. Among the major pieces of equipment are a 400,000 pound compression testing machine, direct shear, unconfined compression, consolidation and triaxial testing machines.

Surveying Laboratory. Practical field exercises in surveying are conducted

outdoors except in cases of unusually inclement weather. The Civil Engineering Department maintains a wide range of instruments and equipment representative of current surveying practice. In addition to a variety of conventional nonoptical tools and measuring devices, principal instruments available for supervised student use include modern theodolites, modern precise self-leveling levels, and traditional transits and levels of the manual four-point leveling type.

Experimental Stress Laboratory. This laboratory contains the necessary equipment for experimental studies of stress and strain distribution using Brittle coatings, photoelasticity, strain gages, and Birefringent coating.

The Laboratories of Electrical Engineering.

Electrical Science Laboratory. This laboratory is equipped to give instruction in basic electrical instrumentation and circuits. Work stations are equipped with signal generators, power supplies, oscilloscopes, and components necessary for study of elementary electrical, electronic, and electro-mechanical circuits and systems.

Electronics Laboratory. This laboratory is equipped with the electronic instruments and components necessary for conducting studies of semi-conductor devices and circuits, active and passive networks, and characteristics of signals. A typical work station for a group of two students includes an oscilloscope, power supplies, a signal generator, and necessary electronic components. This laboratory is equipped so that students may design and construct prototype electronic circuits and systems.

Energy Conversion. This laboratory is equipped to conduct studies of the behavior of electrical energy conversion devices and their control under static and dynamic conditions. It contains medium and fractional horsepower A.C. and D.C. motors, generators, dynamometers, and static electronic converters.

Microwave Laboratory. This laboratory is equipped with instruments for making precision measurements of electrical quantities at microwave frequencies. It contains signal sources, slotted lines and wave guides, and antennas for the study of propagation of electrical energy at high frequencies.

Systems Analysis Laboratory. This laboratory is equipped with electro-mechanical and electrohydraulic devices and components, transducers, recorders, and breadboard apparatus. Analog computers and special measuring devices are used for component modeling and system design.

Digital Systems Laboratory. This laboratory contains equipment for the study and design of digital systems ranging from combinational circuits to microprocessors. Microprocessor equipment includes an Altair 8800, two SWTP6800 systems with breadboarding capacity, and eleven Motorola MEK6800D2 systems for hands-on software study.

The Laboratories of Mechanical Engineering.

Controls. This laboratory is equipped for the study of closed loop control systems. Small scale process systems, including pressure, temperature, flow and level control loops, are available for experimentation. Electronic and

pneumatic analogs, with associated commercial controllers, are also available to test control loop fundamentals related to machine and process applications.

Energetics. This laboratory is equipped for the study of mobile power sources. Equipment consists of spark ignition and compression ignition engines, fuel cell and associated measurement and analysis instruments.

Experimental Stress. This laboratory contains the necessary equipment for experimental studies of stress and strain distribution using Brittle coatings, photoelasticity, strain gages, and Birefringent coating.

Heat Transfer and Gas Dynamics. This laboratory is equipped with a heat exchanger, natural convection loop, refrigeration and air conditioning units, blowers, compressors, shock tube, flow table, thrust stand, a supersonic wind tunnel, and necessary instrumentation for the study for heat transfer and compressible fluid flow.

Manufacturing Processes. This laboratory complex provides facilities for metal cutting, metal forming, welding, heat treatment and metal casting studies. The equipment contained in these laboratories includes: a Computer-Aided Design/Computer-Aided Manufacturing (CAD/CAM) Station, tracer and numerically-controlled machines, standard tool room equipment, production equipment, a television-equipped metallograph, heat treating and casting furnaces, and welding equipment.

Measurements. This laboratory contains equipment for measuring pressure, temperature, force, strain, displacement, and numerous other physical phenomena. Auxiliary equipment is available to study calibration techniques, and to determine instrument limits in response to both static and dynamic signals.

Vibration and Sound. This laboratory contains a vibration table, electrical and mechanical excitation equipment, system models, sound chamber, and sound-measuring instrumentation.

Design. Although no single room is available, experiments in the area of stress, stress concentration, beam deflection, fatigue, lubrication, and machine dynamics are performed. Computer-Aided Design (CAD) facilities are available.

Interdepartmental Laboratories.

Television Center. This facility is equipped with a control room for the preparation of videotapes and videocassettes for instructional use and student self-evaluation. Television cameras, recorders, monitors, special effects, and distribution equipment are operated by trained personnel to provide supplementary audio-visual material for the classroom teacher. The facility also contains videocassette study carrels which are provided for independent study and/or review of material at times convenient to the student. The study carrels are also available for use by other academic departments of the University.

The Computer Center. The digital computer laboratory, which is under the administrative direction of the academic computing center, is housed in the Gellersen Engineering-Mathematics Center and is available for use by the

students and faculty of the College of Engineering. The Center is equipped with a Hewlett-Packard 3000 time shared digital computer system. This system is used for academic purposes only.

STUDENT ORGANIZATIONS. Professional development of engineering students is encouraged through the activities of the General Engineering Society. Upon selecting a major, students are encouraged to join the local student chapters of the American Society of Civil Engineers, the American Society of Mechanical Engineers, or the Institute of Electrical and Electronic Engineers. Officers of these Founder Societies form the Joint Engineers Council which administers the affairs of the General Engineering Society. The General Engineering Society conducts a general interest program for all engineering students and sponsors social and recreational activities for the College.

The Engineering Supply Store is a student-operated, not-for-profit store that supplies students with engineering materials at reduced prices. Earnings are used to finance General Engineering Society activities.

TAU BETA PI. Junior and senior students who have distinguished themselves by high scholarship, exemplary character, unselfish activity, and breadth of interest in their profession may be elected to membership in this national engineering honorary fraternity. The Indiana Delta Chapter was installed at Valparaiso University on March 23, 1963. The chapter serves to replace Appian Society, which was a local honorary organization founded in 1959.

PROFESSIONAL REGISTRATION OF ENGINEERS. Registration of those who wish to practice professional engineering is required by law in each of the states and the District of Columbia. The purpose of the law is to assure the general public that those professing to practice engineering have been examined and accepted by a State Board of Examiners. It is desirable, therefore, that every engineering graduate apply for registration as an Engineer-in-Training (EIT) shortly before or upon graduation. EIT examinations are held each spring at Valparaiso University and at other institutions offering accredited engineering programs.

INTERDISCIPLINARY PROGRAMS. Programs can be planned which meet special needs of students who study engineering at Valparaiso University. Typical career programs are in nuclear engineering, electromechanical engineering, bio-engineering, chemical engineering, or medicine. These programs involve replacing technical and free electives with courses from other disciplines. Each student plans a program in consultation with a faculty adviser and must secure the approval of the Dean of the College. Upon graduation, the student receives a Bachelor of Science degree in Civil, Electrical, or Mechanical Engineering.

Students who have an interest in nuclear engineering take advanced courses in nuclear science offered by the Department of Physics. The Department of Physics has excellent facilities and a modern nuclear reactor.

DOUBLE-DEGREE PROGRAM. This program leads to the degree of Bachelor of Arts or Bachelor of Science, in addition to the appropriate engineering degree. Five years are usually required to complete this program, although exceptional students have completed it in less time.

Two degrees may be earned by completing one of the engineering curricula and completing the general education and major requirements of the B.A. degree or B.S. degree. This will require earning 168 credit hours and attaining a standing of at least two (2.00). Students electing such a program must have their schedules approved by both the Dean of the College of Arts and Sciences and the Dean of the College of Engineering at the beginning of each semester. Further information may be obtained from the Dean of the College.

MAJOR. A student may declare a major in the College of Arts and Sciences by fulfilling all requirements for that major. The major will be noted on the student's official academic record.

MINOR. A student may declare a minor (including the General Business Sequence) in the College of Arts and Sciences, provided that no more than six hours of specified courses required for the engineering program are used in fulfilling the requirement of a minor. The minor will be noted on the student's official academic record. Since the mathematics minor is implicit in the engineering program, it is not noted on the student's official academic record.

THE ENGINEERING COLLEGE AND CHRIST COLLEGE. Certain students enrolled in the College may be invited to participate in the program of Christ College. These students will pursue a normal engineering program; however, courses taken in the Christ College program will replace selected non-technical courses in the engineering program. These students will be assigned an academic adviser who is a member of the faculty of the College of Engineering as well as a member of the Christ College Committee of the University. In conjunction with the advisers, and with the approval of the Dean of the College, these students will plan and execute an enriched program in the humanities, taking advantage of the specialized courses offered by the Christ College Program.

HONORS WORK. A student of exceptional ability may pursue a program of independent study or research during his/her senior year. Details of this program must be worked out with the department chairperson and have the approval of the Dean of the College.

INSPECTION TRIPS. Trips to industrial plants are arranged and conducted by members of the engineering faculty and are designed to correlate the instruction with the industries visited.

MATHEMATICS ENRICHMENT. For those entering students who perform well on the mathematics placement examination, an enriched program is available. With approval of the Dean of the College, Mathematics 75, Calculus I (4 credits) and Mathematics 81, Topics in Mathematics I (1 credit) are taken in place of Mathematics 71, Analytic Geometry and Calculus I (5 credits) during the first semester. In the second semester, Mathematics 76, Calculus II (4 credits) and Mathematics 82, Topics in Mathematics II (1 credit) are taken in place of Mathematics 72, Analytic Geometry and Calculus II (5 credits).

PLACEMENT. The University Placement Service arranges on-campus interviews for seniors with a variety of employers. Over two hundred businesses and industries visit the campus each year for that purpose. In addition, the Placement Service helps students to arrange for off-campus interviews with

firms not interviewing on campus, and assists students in finding summer employment and part-time employment during the school year. The career resources library, in the Placement Office, contains information on employers throughout the United States.

APPROVAL OF SCHEDULES. All engineering students must have their schedules approved by their advisers at the beginning of each semester.

ADMISSION. The requirements for the first-year class are set forth on page 23 of this bulletin.

GRADUATION REQUIREMENTS. In addition to the requirements set forth on page 214 of this bulletin, the student must complete one of the prescribed curricula. The curriculum for each degree is composed of a group of courses common to the degree programs offered by the College and a group of courses that make up the specialized work in each program. Each program requires a total of 138 credits. The common courses required for all programs are listed below and the additional courses required for each program are found in the departmental listings.

REQUIREMENTS COMMON TO CIVIL, ELECTRICAL, AND MECHANICAL ENGINEERING PROGRAMS.

GE	14.	Engineering Graphics	2
GE	20.	Introduction to Algorithms for Computing	3
GE	30.	Engineering Laboratory	2
GE	69.	Energy Systems	3
GE	90.	Mechanics-Statics	3
GE	94.	Mechanics-Dynamics	3
GE	95.	Electricity and Magnetism	4
GE	97.	Engineering Science	4
Chem.	51E.	General Chemistry	4
Engl.	5.	Exposition and Argument	3
Engl.	25.	Literary Studies	4
History	5.	History of Western Thought and Society	3
Math		Calculus	14
PE	10.	Physical Education	2
Theo	5.	Introduction to Christian Theology	3
		Religion Elective	3
		Academic Area Studies Option	3
FS	5.	Freshman Seminar	3
		Total Credits	66

Social Analysis Elective and Academic Area Studies Option are defined on page 34 of the catalog. The specific courses are subject to the approval of the College of Engineering and must meet ABET requirements.

TRANSFER STUDENT. Academic work taken at other schools will be evaluated by the appropriate department chairperson and advanced standing granted by the Registrar accordingly. A transfer student may apply a maximum of 3 credits in religion from his advanced standing to the religion requirement. A transfer student with more than 68 credits of advanced standing need only complete one course (3 credits) of religion at Valparaiso University.

SUGGESTED COURSE PROGRAM. The suggested program is the same for the three engineering degree programs for the first three semesters. At the start of the fourth semester the student begins a program leading to one of the three professional degrees. Special programs for the fourth semester are arranged for those students who wish to delay a choice of major until the fifth semester. Suggested programs for the last five semesters are found under departmental offerings.

FRESHMAN YEAR.

First Semester.

M	71.	Analytic Geometry and Calculus I	5
GE	14.	Engineering Graphics	2
GE	20.	Introduction to Algorithms for Computing	3
FS	5.	Freshman Seminar	3
THEO	5.	Introduction to Christian Theology	3
PE	10.	Physical Education: Activities	1
Total Credits			17

Second Semester.

M	72.	Analytic Geometry and Calculus II	5
GE	30.	Engineering Laboratory	2
GE	69.	Energy Systems	3
GE	90.	Mechanics-Statics	3
ENGL	5.	Exposition and Argument	3
PE	10.	Physical Education: Activities	1
Total Credits			17

SOPHOMORE YEAR.

First Semester.

M	77.	Calculus III	4
Ch	51E.	General Chemistry	4
GE	94.	Mechanics-Dynamics	3
GE	95.	Electricity and Magnetism	4
HIST	5.	History of Western Thought and Society	3
Total Credits			18

Undergraduate Credit.*

GENERAL ENGINEERING.

GE 4. Elementary Graphics. (Also offered as Home Economics 4.) 1+3, Cr. 2. A course to acquaint the student with the graphic techniques of lettering and line work, scale drawing and size description, and orthographic projection. Emphasis is on architectural drawings. A survey of methods, practices, and techniques of home construction is included. (Not open to engineering students.) Prerequisite: sophomore standing. (Given in alternate years.)

GE 14. Engineering Graphics. 1+4, Cr. 2. A course in the theory and techniques of engineering graphics. Emphasis is placed on theoretical geometric projections; lines and planes in space, orthographic projections, intersections and contours, and oblique and perspective views. Demonstration of computer graphics is included.

GE 20. Introduction to Algorithms for Computing. 3+0, Cr. 3. A fundamental course in algorithmic processes. Special emphasis is placed on the use of a computer system with FORTRAN IV. Elementary applications in numerical analysis, operations research, and data processing are studied. The student will learn to design elementary algorithms, express them in flow chart format, and write FORTRAN IV Programs for their implementation.

GE 30. Engineering Laboratory. 1+2, Cr. 2. A fundamental course in conceptual understanding of the design of laboratory experiences. The student is required to design several experiences under the guidance of the instructor. The work will include understanding and performing component tasks of laboratory experiences related to concurrent engineering courses. Also included are data analysis, interpretation of results, and technical report writing. Prerequisite: GE 20.

GE 69. Energy Systems. 3+0, Cr. 3. A basic course in heat and thermodynamics. The first and second laws of thermodynamics are emphasized through energy balances, conservation of energy and energy limits. Properties of fluids and vapors are studied using tables and charts, and the equation of the perfect gas. Functions, principles of construction, and actual performance of heat power machinery are analyzed to demonstrate theory and practice.

GE 90. Mechanics-Statics. 3+0, Cr. 3. A course in the resolution and composition of forces, and the free body diagram. Topics include principles of equilibrium, first and second

*See page 39 for the number of credits that may be applied toward a degree offered by the College of Arts and Sciences.

moments of areas, study of trusses, frames and machines, and friction. Prerequisite: Mathematics 71 or 75.

GE 94. Mechanics-Dynamics. 3+0, Cr. 3. A study of motion of a particle, and systems of particles in rectangular, curvilinear, and polar coordinates. The course includes motion of a rigid body in translation, rotation, and general plane motion, forces involved in moving systems, use of work and energy relations; impulse and momentum, and periodic motion. Prerequisites: Mathematics 72 or 76 and GE 90.

GE 95. Electricity and Magnetism. 3+3, Cr. 4. A study of the definitions and properties of electric and magnetic force fields. The application of Kirchhoff's Laws to elementary DC and AC circuits is emphasized. Prerequisite: Mathematics 71 or 75.

GE 97. Engineering Science. 4+0, Cr. 4. An introduction to the mechanics of waves, and to the structure of atoms and their nuclei. Topics include: the theory of waves, reflection, refraction, diffraction, polarization, special theory of relativity, wave-particle duality, atomic structure, nuclear structure, fission and fusion. Prerequisites: GE 94 and GE 95.

GE 187. Engineering Economics. 7 weeks, 4+0, or 14 weeks, 2+0, Cr. 2. The theory of economic decision making based on comparisons of worths of alternative courses of action with respect to cost. Time-value mechanics and depreciation methods. Prerequisite: junior standing in the College.

GE 195. Senior Problem. Variable credit. Selected students are permitted to work out a special problem in their particular field under the supervision of a member of the faculty. Each student will be required to keep a progress notebook and to turn in a final report, typed in triplicate and in approved form. Open only to students with acceptable senior standing upon permission of the faculty and approval of the Dean of the College.

CIVIL ENGINEERING

Professors

A. Sami El-Naggar, P.E.
Ph.D., Purdue University
Kenneth Mortimer, P.E.
M.S., Illinois Institute of Technology
James E. Schueler, P.E.
M.S., Northwestern University

Assistant Professors

Anatol Longinow
Ph.D., Illinois Institute of Technology
Abdul H. Salim, P.E.
M.A.Sc., University of Toronto
Vivek S. Savur
Ph.D., University of Texas

Associate Professor

Bradford H. Spring (chairman)
Ph.D., University of Wisconsin

GRADUATION REQUIREMENTS.

In addition to the courses common to each degree program listed on page 176, the following courses are required to earn the degree of Bachelor of Science in Civil Engineering.

CE	100.	Surveying	3
CE	103.	Mechanics of Materials	3
CE	112.	Materials Engineering	2
CE	120.	Soil Mechanics	3
CE	122.	Soil and Foundation Engineering	3

CE	109.	Structural Analysis I	4
CE	115.	Structural Analysis II	3
CE	116.	Structural Design I	4
CE	117.	Structural Design II	3
CE	164.	Environmental Engineering I	3
CE	165.	Environmental Engineering II	3
CE	163.	Transportation	3
CE	106.	Fluid Mechanics I	3
CE	113.	Fluid Mechanics II	3
CE	114.	Engineering Management	3
CE	190.	Independent Study Project I	2
CE	191.	Independent Study Project II	2
EE	96.	Principles of Electrical Engineering	4
M	102.	Linear Algebra with Differential Equations	4
		General Chemistry or Unity of Life or Geomorphology	3 or 4
ECON	71/72.	Principles of Economics: Micro/Macro	3
SPDR	40.	Public Communication	2
		Technical Electives	6
Total Credits			72 or 73

Technical Electives.

The technical elective requirement may be met with Civil Engineering electives or courses from Biology, Chemistry, Mathematics and Computer Science, Physics, or courses in other engineering departments. Courses used to fulfill this requirement must be upper division courses and must be approved by the Civil Engineering Department Chairperson.

SOPHOMORE YEAR.

Second Semester.

M	102.	Linear Algebra with Differential Equations	4
CE	100.	Surveying	3
GE	97.	Engineering Science	4
EE	96.	Principles of Electrical Engineering	4
		Add One of the Following:	
Ch	52E.	General Chemistry	3
Bi	50.	Unity of Life	4
Geo	4.	Geomorphology	4
Total Credits			18 or 19

JUNIOR YEAR.

First Semester

CE	103.	Mechanics of Materials	3
CE	106.	Fluid Mechanics I	3
CE	112.	Materials Engineering	2
CE	120.	Soil Mechanics	3
CE	163.	Transportation	3
Sp	40.	Public Communication	2
Total Credits			16

Second Semester

CE	109.	Structural Analysis I	4
CE	116.	Structural Design I	4
CE	122.	Soil & Foundation Engineering	3
CE	164.	Environmental Engineering I	3
Engl	25.	Literary Studies	4
Total Credits			18

SENIOR YEAR.

First Semester

CE	115.	Structural Analysis II	3
CE	117.	Structural Design II	3
CE	165.	Environmental Engineering II	3
CE	190.	Independent Study Project I	2
EC	71/72.	Principles of Economics	3
		Technical Elective	3
Total Credits			17

Second Semester

CE	113.	Fluid Mechanics II	3
CE	114.	Engineering Management	3
CE	191.	Independent Study Project II	2
		Technical Elective	3
		Religion Elective	3
		Area Studies Elective	3
Total Credits			17

Total Credits, 138

Undergraduate Credit.*

CIVIL ENGINEERING.

CE 100. Surveying. 2+3, Cr. 3. A study of the science and art of absolute and relative spatial measurements for engineering purposes. Special emphasis is placed upon the theory of errors; use of surveying instruments; and field practice in transit-tape traversing, leveling, and route surveying. Prerequisite: Mathematics 71 or 75.

CE 103. Mechanics of Materials. 3+0, Cr. 3. Concepts of stress and strain; stress-strain relationships; states of plane stress and strain at a point; elementary analysis of stress distributions and deformations for axial loading of prismatic members, torsional loading of circular shafts, and bending of beams; combined loading; plastic and elastic action; and an introduction to statically indeterminate problems. Prerequisites: Mathematics 77 and GE 90.

CE 106. Fluid Mechanics I. 2+3, Cr. 3. An examination of fluid properties, fluids at rest, and fluid flow including conservation of mass, momentum, energy, fluid friction, lift, drag, dimensional analysis, and similitude. Applications include pipe flow, channel flow, pumps, turbines, flow measurement, hydraulic model studies, and flow around submerged objects. Prerequisites: Mathematics 77 and GE 94.

CE 109. Structural Analysis I. 4+0, Cr. 4. Analytical and graphical methods for the determination of axial, flexural, shearing, and torsional stresses and their resulting deflections. Common structural forms of both determinate and indeterminate types such as bridge and roof trusses, cable-structures, beams and frames will be treated. Influence line theory and energy methods will be introduced. Prerequisite: CE 103.

CE 112. Materials Engineering. 1+3, Cr. 2. A study of the mechanical properties of engineering materials and the relationship between their behavior and the design of structural and machine components. The macro- and micro-structure of materials are studied and the elementary concepts of failure including fracture, yielding, and elastic instability are presented along with the classic theories of failure. Experimental investigations involving static yielding and fracture, fatigue, impact and creep are conducted in the laboratory. Prerequisite: CE 103 or concurrent registration.

CE 113. Fluid Mechanics II. 3+0, Cr. 3. Application of the principles of fluid mechanics to solution of engineering analysis and design problems. Topics include: model testing, advanced closed conduit and open channel hydraulics, a study of reservoirs, ground water flow, and other items of current interest. Prerequisites: CE 106 and CE 164.

CE 114. Engineering Management. 3+0, Cr. 3. Application of the concepts of engineering economy to construction projects using the case study approach. Investigate construction management aspects, i.e., CPM, specifications, contracts, and forms of organization of an engineering firm. Select discussions relating to professionalism and professional ethics. Prerequisite: senior standing in the College of Engineering.

CE 115. Structural Analysis II. 3+0, Cr. 3. Analysis of statically indeterminate structures, using the approximate method, classical methods and contemporary methods. These will include moment distribution, slope-deflection, matrix methods, elastic center column analogy and digital computer approaches. Prerequisites: GE 20 and CE 109.

CE 116. Structural Design I. 3+3, Cr. 4. The design of steel structural system components using elastic and plastic methods. Design of bolted and welded connections. Use of AISC and AASHTO codes in the design of steel buildings, plate girders, and bridges. Prerequisite: CE 109 or concurrent registration.

CE 117. Structural Design II. 3+0, Cr. 3. The analysis and design of reinforced concrete structural system components using the latest ACI strength design methods. Design will include flexural members, compression members, slabs and footings. Prerequisites: CE 109 and CE 115.

CE 118. Structural Design III. 2+2, Cr. 3. Selected design discussions in the areas of timber design, composite design, prestressed concrete design and plastic design in steel. Prerequisites: CE 116 and CE 117.

CE 120. Soil Mechanics. 2+3, Cr. 3. The study of index, structural, mechanical, and hydraulic properties of soils. Soil compaction and stabilization. Theoretical soil mechanics,

*See page 39 for the number of credits that may be applied toward a degree offered by the College of Arts and Sciences.

including shearing strength, pressure distribution, consolidation, active and passive states of plastic equilibrium, and flow through permeable media. Elementary principles of laboratory identification and testing of soils. Fundamental properties of plain concrete and its components, including batch design. Prerequisites: CE 103, CE 106, CE 112 or concurrent registration.

CE 122. Soil and Foundation Engineering. 3+0, Cr. 3. A continuation of CE 120. Further aspects of theoretical soil mechanics, including slope stability, lateral earth pressure and retaining walls, vertical pressure distribution and settlement, bearing capacity analysis, and load capacity of individual piles and pile groups. Proportioning of shallow and deep foundations. Subsoil investigation techniques. Prerequisite: CE 120.

CE 163. Transportation. 3+0, Cr. 3. Study of the geometric design of transportation routes. Transportation planning. A survey of the application of engineering principles to the location, design, and construction of water, rail, and air transport. A look at pipe line, belt conveyor and systems for the future. A study of public transportation modes. Prerequisites: GE 94 and CE 100.

CE 164. Environmental Engineering I. 2+3, Cr. 3. The general aspects of society and the environment and the effects of pollution on nature's resources. Among topics considered are: water supply; water distribution; waste water problems; waste water collection; solid waste disposal; and the study of air and water quality criteria. Field trips are required. Prerequisite: CE 106.

CE 165. Environmental Engineering II. 2+2, Cr. 3. The application of environmental pollution control principles to unit processes studies and design. Field trips are required. Prerequisite: CE 164.

***CE 166. Environmental Engineering III.** 2+2, Cr. 3. The history of the air pollution problem. Study of the different types of pollutants and their effect on the environment as well as investigation of the methodology for determining air quality criteria and standards, regulations, and ordinances. Discussion of plans for the implementation of air pollution control. Prerequisite: CE 165 or concurrent registration.

***CE 167. Traffic Engineering.** 2+2, Cr. 3. Design of airport and highway flexible and rigid pavements. An introductory study of traffic flow, techniques for describing the flow and capacities of highways and intersections. Methods of collecting volume and speed data. Economic factors are considered. Prerequisites: CE 122 or concurrent registration and CE 163.

CE 190. Independent Study Project I. 1+3, Cr. 2. The application of theoretical and experimental engineering concepts and mathematical principles in the analysis, design, or investigation of an engineering system. Individual or group problems in the field of civil engineering to be selected by the student with the approval of the civil engineering faculty. Prerequisite: senior standing in civil engineering.

CE 191. Independent Study Project II. 1+3, Cr. 2. A continuation of the project selected in CE 190.

*Elective courses.



ELECTRICAL ENGINEERING

Professors

William H. Dauberman, P.E.
M.S., Illinois Institute of Technology
Demosthenes P. Gelopoulos
Ph.D., University of Arizona
Edgar J. Luecke (chairman)
Ph.D., Purdue University
William Shewan
Ph.D., Purdue University
Merlyn C. Vocke, P.E.
Ph.D., University of Iowa

Associate Professors

Rodney J. Bohlmann, P.E.
Ph.D., Rice University
Gerhard A. Vater
M.S., Purdue University

Assistant Professors

Daniel W. Hart, P.E.
M.S., Purdue University
Donald S. Szarkowicz, P.E.
Ph.D., Illinois Institute of Technology

GRADUATION REQUIREMENTS.

In addition to the courses common to each degree program listed on page 176, the following courses are required to earn the degree of Bachelor of Science in Electrical Engineering.

EE	81.	Laboratory I	1
EE	85.	Electronics	3
EE	89.	Linear Circuits	3
EE	102.	Laboratory II	1
EE	103.	Laboratory III	2
EE	104.	Laboratory IV	1
EE	105.	Laboratory V	1
EE	110.	Continuous Systems	3
EE	111.	Discrete Systems	3
EE	120.	Digital System Design	3
EE	121.	Computer Organization	3
EE	131.	Electromagnetic Field Theory	3
EE	138.	Energy Conversion	3
EE	140.	Analog System Design	3
EE	190.	Independent Study Project I	2
EE	191.	Independent Study Project II	2
		Electrical Engineering Electives	11
GE	187.	Engineering Economics	2
M	102.	Linear Algebra with Differential Equations	4
Ch	52E.	General Chemistry	3
		Engineering Science Elective	3
		Technical Electives	6
		Free Elective	3
		Social Analysis Elective	3
		Total Credits	72

Technical Electives.

The technical elective requirement may be met with additional Electrical Engineering electives or with courses from the following departments: Civil Engineering, Mechanical Engineering, Biology, Chemistry, Mathematics and Computer Science, or Physics.

SOPHOMORE YEAR.

Second Semester.

M	102.	Linear Algebra with Differential Equations	4
Ch	52E.	General Chemistry	3
Engl	25.	Literary Studies	4
EE	81.	Laboratory I	1
EE	85.	Electronics	3
EE	89.	Linear Circuits	3
		Total Credits	18

JUNIOR YEAR.

First Semester		
	Religion Elective	3
GE 97.	Engineering Science	4
EE 102.	Laboratory II	1
EE 110.	Continuous Systems	3
EE 120.	Digital System Design	3
EE 140.	Analog System Design	3
Total Credits		17

Second Semester		
	Social Analysis Elective ...	3
	Engineering Science Elective	3
EE 103.	Laboratory III	2
EE 111.	Discrete Systems	3
EE 121.	Computer Organization	3
EE 131.	Electromagnetic Field	
	Theory	3
Total Credits		17

SENIOR YEAR.

First Semester		
	Area Studies Elective	3
	Technical Elective	3
	EE Electives	5
EE 104.	Laboratory IV	1
EE 138.	Energy Conversion	3
EE 190.	Independent Study Project I	2
Total Credits		17

Second Semester		
	Technical Elective	3
	Free Elective	3
	EE Electives	6
GE 187.	Engineering Economics ...	2
EE 105.	Laboratory V	1
EE 191.	Independent Study Project II	2
Total Credits		17

Total Credits, 138

Undergraduate Credit.***ELECTRICAL ENGINEERING.**

EE 80. Electronics and Scientific Instrumentation. (Also offered as Chemistry 80.) 2+3, Cr. 3. Electronic principles and devices are studied, with applications to scientific instrumentation. Laboratory experience with instruments is emphasized, and simple troubleshooting techniques are taught. Prerequisites: Physics 77 or concurrent enrollment and sophomore standing. Offered every other year.

EE 81. (Formerly EE 127). Laboratory I. 0+3, Cr. 1. Laboratory study of linear and electronic circuits. Prerequisite: GE 95.

EE 85. (Formerly EE 140). Electronics. 3+0, Cr. 3. An introduction to semiconductor theory and the application of diodes, transistors and integrated circuits in the design of amplifiers and multiple transistor circuits. Prerequisite: GE 95.

EE 89. (Formerly EE 128). Linear Circuits. 3+0, Cr. 3. A study of the fundamental methods and theorems of electric circuit analysis with emphasis on both analytical and computer aided methods. Topics include steady state analysis of DC and AC circuits, transient and complete response of first and second order circuits, frequency domain analysis and coupled circuits. Prerequisite: GE 95.

EE 96. Principles of Electrical Engineering. 3+3, Cr. 4. Principles and applications of electronic and electromagnetic devices. Topics include basic rotating machines, transformers, semiconductor circuits, logic circuits, amplifiers, and instrumentation. Prerequisite: GE 95.

EE 102. (Formerly EE 132). Laboratory II. 0+3, Cr. 1. The study of analog and digital signals and signal processing circuits emphasizing measurement techniques. Prerequisites: EE 85 and EE 89.

EE 103. (Formerly EE 133). Laboratory III. 0+6, Cr. 2. An introduction to the design, construction, and laboratory evaluation of analog and digital electronic systems. Prerequisites: EE 120 and EE 140.

EE 104. Laboratory IV. 0+3, Cr. 1. Laboratory study and design projects in topics selected from Senior year electrical engineering courses. Prerequisite: senior standing in the Electrical Engineering Department.

EE 105. Laboratory V. 0+3, Cr. 1. A continuation of Laboratory IV. Prerequisite: senior standing in the Electrical Engineering Department.

*See page 39 for the number of credits that may be applied toward a degree offered by the College of Arts and Sciences.

EE 110. Continuous Systems. 3+0, Cr. 3. An introduction to linear time-invariant systems analysis using frequency response and linear transform techniques. Prerequisites: EE 89 and Mathematics 102 or concurrent registration.

EE 111. Discrete Systems. 3+0, Cr. 3. A continuation of EE 110 with emphasis on the digital representation of continuous systems. Topics include state space representation of linear systems and digital simulations of linear and nonlinear systems. Prerequisite: EE 110.

EE 120. (Formerly EE 143). Digital System Design. 3+0, Cr. 3. A logic design course covering inter-domain conversion, combinational and sequential logic, controller specification and design using MSI and LSI devices. Prerequisite: GE 95.

EE 121. Computer Organization. 3+0, Cr. 3. An introduction to the information transfers and transformations which take place in a digital computer. Topics include stored program concepts, data representations, common algorithms, instruction formats, components and structure of computer systems. Prerequisite: GE 20.

EE 131. Electromagnetic Field Theory. 3+0, Cr. 3. The study of fundamental laws of static and dynamic electric and magnetic fields using vector methods. Topics include boundary value problems, Maxwell's equations, and electromagnetic radiation. Prerequisite: Mathematics 77.

EE 138. Energy Conversion. 3+0, Cr. 3. A study of electromagnetic devices with emphasis on the principles and operating characteristics of transformers and rotating electrical machines. Prerequisite: GE 95.

EE 140. Analog System Design. 3+0, Cr. 3. The design of analog electronic systems using discrete and integrated devices. Topics include discrete and operational amplifier circuits, active filters, waveform generators, power amplifiers, power supplies, regulators and multipliers. Prerequisite: EE 85.

***EE 151. (Formerly EE 144). Microwaves.** 3+0, Cr. 3. An introduction to the principles and applications of microwave devices and circuits. Topics include microwave circuit theory, waveguiding techniques, components and solid-state devices. Prerequisite: EE 131.

***EE 157. (Formerly EE 147). Communication Electronics.** 7 weeks. 4+0, Cr. 2. A course in the analysis and design of electronic circuits used in the communication of electric signals. Topics include RF amplifiers, oscillators, mixers, modulators, demodulators and coupling circuits. Prerequisite: EE 140.

***EE 158. Communication Theory.** 3+0, Cr. 3. The effects of system bandwidth and noise on the transmission of information by electrical signals. Topics include amplitude and angle modulation, sampling theorem, pulse code modulation and information measure. Prerequisite: EE 111.

***EE 160. (Formerly EE 150). Microprocessor Applications.** 3+0, Cr. 3. The application of microprocessors in engineering design, emphasizing the interconnection of available components into systems. Prerequisite: EE 121.

***EE 170. (Formerly EE 155). Power System Engineering.** 3+0, Cr. 3. Power system components, load flow and the control of voltage and energy are studied. System fault studies are related to system protection. Prerequisite: EE 110.

***EE 175. (Formerly EE 156). Servomechanism Design.** 3+0, Cr. 3. Control system identification is accomplished by laboratory measurement techniques and by time and frequency response methods. Compensation methods to achieve specified performance measures of automatic control systems are studied and applied. Optimal control methods are developed for both continuous-time and discrete-time systems. Prerequisite: EE 110 or ME 181.

***EE 177. (Formerly EE 146). Power Electronics.** 7 weeks, 4+0, Cr. 2. A course in the application and design of power semiconductor circuits. Topics include rectifiers, AC controllers, choppers, inverters, and converters. Prerequisite: EE 85.

EE 190. Independent Study Project I. 1+3, Cr. 2. The application of theoretical and experimental engineering concepts and mathematical principles to the analysis, design and laboratory investigation of an engineering system. Individual or group problems in the field of electrical engineering are selected by the student with approval of the faculty. Prerequisite: senior standing in electrical engineering.

*Elective courses.

EE 191. Independent Study Project II. 1+3, Cr. 2. A continuation of the project selected in EE 190.

***EE 194. (Formerly EE 149). Topics In Electrical Engineering.** 7 weeks or 14 weeks. Cr. 2-3. The investigation of electrical engineering topics of special interest. Prerequisite: consent of the chairperson of the department.

MECHANICAL ENGINEERING

Professors

Fred W. Kruger, P.E.
M.S., University of Notre Dame
Gilbert M. Lehmann
Ph.D., Purdue University
James T. Scroggin, P.E.
Ph.D., University of Cincinnati
Leslie M. Zoss, P.E.
Ph.D., Purdue University

Assistant Professor

Norman K. Jensen
M.S., Purdue University

Instructor

Donald A. Streit
M.S., Oklahoma State University

Professor Emeritus

Robert L. Isbell

Associate Professors

Michael L. Doria
Ph.D., The Johns Hopkins University
Robert L. Rose, P.E.
M.S., Illinois Institute of Technology
William J. Schoech, P.E.
Ph.D., Purdue University
John R. Steffen, P.E. (Acting Chairman)
Ph.D., Rutgers University

GRADUATION REQUIREMENTS.

In addition to the courses common to each degree program listed on page 176, the following courses are required to earn the degree of Bachelor of Science in Mechanical Engineering.

ME	104.	Materials Laboratory	3
ME	169.	Computer Applications	2
ME	170.	Thermodynamics I	3
ME	171.	Thermodynamics II	2
ME	172.	Fluid Dynamics	3
ME	173.	Mechanical Measurements Laboratory	3
ME	175.	Heat Power Laboratory	1
ME	177.	Heat Transfer	3
ME	180.	Mechanisms	3
ME	183.	Machine Design I	3
ME	186.	Manufacturing Processes	3
ME	190.	Independent Study Project I	2
ME	191.	Independent Study Project II	2
CE	103.	Mechanics of Materials	3
EE	96.	Principles of Electrical Engineering	4
GE	187.	Engineering Economics	2
Chem	52E.	General Chemistry	3
M	104.	Differential Equations with Linear Algebra	4
Sp	40.	Public Communication	2
		Mechanical Engineering Electives	12
		Social Analysis Elective	3
		Technical Elective	3
		Free Elective	3
		Total Credits	72

*Elective course.

Technical Electives.

The technical elective requirement may be met with additional courses from Mechanical Engineering electives, Civil Engineering, Electrical Engineering, Biology, Chemistry, Mathematics and Computer Science, or Physics. Courses used to fulfill this requirement must be upper division courses and must be approved by the Mechanical Engineering Department Chairperson.

SOPHOMORE YEAR.

Second Semester.

ME	170.	Thermodynamics I	3
ME	173.	Mechanical Measurements Laboratory	3
Ch	52E.	General Chemistry	3
Engl	25.	Literary Studies	4
Math	104.	Differential Equations with Linear Algebra	4
Total Credits			17

JUNIOR YEAR.

First Semester

ME	104.	Materials Laboratory	3
ME	169.	Computer Applications	2
ME	172.	Fluid Dynamics	3
ME	180.	Mechanisms	3
EE	96.	Principles of Electrical Engineering	4
Sp	40.	Public Communication	2
Total Credits			17

Second Semester

ME	175.	Heat Power Laboratory	1
ME	177.	Heat Transfer	3
ME	186.	Manufacturing Processes	3
CE	103.	Mechanics of Materials	3
GE	97.	Engineering Science	4
		Social Analysis Elective	3
Total Credits			17

SENIOR YEAR.

First Semester

ME	171.	Thermodynamics II	2
ME	183.	Machine Design I	3
ME	190.	Independent Study	
		Project I	2
GE	187.	Engineering Economics	2
		Area Studies Option	0-3
		Mechanical Engineering	
		Elective(s)	3-9
		Technical Elective	0-3
Total Credits			18

Second Semester

ME	191.	Independent Study	
		Project II	2
		Area Studies Option	0-3
		Religion Elective	3
		Mechanical Engineering	
		Elective(s)	3-9
		Technical Elective	0-3
Total Credits			17

Total Credits, 138

Undergraduate Credit.†

MECHANICAL ENGINEERING.

ME 104. Materials Laboratory. 2+3, Cr. 3. A study of the composition and mechanical properties of engineering materials as related to their selection in design and fabrication process. Destructive and nondestructive tests are performed to determine mechanical properties, along with metallurgical examination of micro- and macro-structure of materials. Variables considered are heat treatment, material composition, and manufacturing processes. Prerequisites: Chemistry 52E and GE 90.

***ME 105. Experimental Stress Analysis.** 2+2, Cr. 3. An introduction to experimental methods for measuring stresses and strains including: Brittle coatings, photoelasticity, resistance strain gages, Birefringent coatings, and Moire grids. Stress distributions in machine and structural components subjected to various loadings are analyzed both theoretically and experimentally. Prerequisite: senior standing in the College of Engineering.

*Elective course.

†See page 39 for the number of credits that may be applied toward a degree offered by the College of Arts and Sciences.

ME 169. Computer Applications. 2+0, Cr. 2. A continuation of GE 20 which studies formatted I/O, character manipulation, and modular programming. Applies computer programming to mechanical Engineering problems and design including: applications of selected methods of numerical analysis, comparison of selected numerical methods using available application programs; applications of computer graphics to data representation and analysis, Computer Aided Design (CAD), and Computer Aided Manufacturing (CAM). Prerequisites: GE 20 and Mathematics 77.

ME 170. Thermodynamics I. 3+0, Cr. 3. The study of the second law of thermodynamics to reversible and irreversible processes, entropy, real gases, gas and gas-vapor mixtures. The application of thermodynamic principles to the study of vapor and gas cycles. Prerequisite: GE 69.

ME 171. Thermodynamics II. 2+0, Cr. 2. A continuation of ME 170. The study of combustion of hydrocarbon fuels, psychrometrics as applied to cooling towers and air conditioning, refrigeration cycles, and turbo-machinery. Prerequisites: ME 170 and Chemistry 51E.

ME 172. Fluid Dynamics 3+0, Cr. 3. The study of fluid flow, both compressible and incompressible, in variable and constant area ducts. The control volume method is employed in application of the conservation equations to flow systems. Fluid dynamics theory is applied to engineering design. Prerequisites: GE 94 and ME 170 or concurrent registration.

ME 173. Mechanical Measurements Laboratory. 2+3, Cr. 3. Investigations into typical industrial and laboratory primary transducers and read out equipment in the mechanical measurement areas. Dynamic as well as static measurements are emphasized. Prerequisite: GE 69.

ME 175. Heat Power Laboratory. 0+3, Cr. 1. Experimental studies designed to reinforce theory presented in the areas of Heat Transfer, Thermodynamics, and Fluid Mechanics. Experiments deal with topics such as flow and heat transfer mechanisms, refrigeration and internal combustion engines. Prerequisites: ME 177 or concurrent registration, ME 170 and ME 172.

ME 177. Heat Transfer. 3+0, Cr. 3. The principles and practice of heat transfer by conduction, radiation, free and forced convection, vapor condensation, and boiling liquids. Unsteady state heat transfer, dimensional analysis, analytical and graphical solutions to engineering problems related to heat exchangers. Prerequisite: ME 172.

***ME 179. (Formerly ME 184). Heat Power Design.** 2+2, Cr. 3. A design oriented course. Involves the synthesis of heat transfer equipment, heating and air conditioning systems, heat pump applications, and hydraulic and pneumatic systems. Prerequisites: ME 170, ME 172, and ME 177.

ME 180. Mechanisms. 3+0, Cr. 3. A study of the kinematics of mechanisms by graphical and analytical methods; displacement, velocity, and accelerations of linkages; cam design and analysis; gearing fundamentals and applications. Function, motion, and path generation synthesis techniques are considered. Prerequisites: Mathematics 77, GE 20, GE 94 or concurrent registration.

***ME 181. Automatic Control.** 2+2, Cr. 3. Basic fundamentals of instrumentation with particular application to process control. System dynamics and stability concepts using step, ramp and frequency response techniques. Prerequisite: senior standing in the College of Engineering.

***ME 182. Vibrations.** 2+2, Cr. 3. Analysis of single degree and multiple degree of freedom vibration systems; determination of natural frequencies. Practical aspects of vibration isolation, absorption, and damping are considered. Noise measurement and reduction techniques are considered. Prerequisite: senior standing in the College of Engineering.

ME 183. Machine Design I. 2+3, Cr. 3. The rational application of advanced topics in mechanics of materials to the design and analysis of machine elements. Theories of failure, combined stresses, contact stress, stress concentration, fatigue, springs, fasteners, and general mechanical elements. Prerequisite: CE 103.

***ME 185. Machine Design II.** 2+2, Cr. 3. A comprehensive study in the design and analysis of belt and chain drives, gearing, gear trains, antifriction and journal bearings. Shaft critical speeds, dynamic balancing, and machine dynamics are considered. Prerequisite: senior standing in mechanical engineering.

*Elective courses.

ME 186. Manufacturing Processes. 2+3, Cr. 3. A study of manufacturing methods including production drawings, tools, operation planning, materials, fabrication techniques, and inspection. Machinability of materials, application of machine tools, welding, casting, heat treating, and numerical control are introduced through lecture and laboratory work. Field trips to industrial facilities are arranged. Prerequisite: GE 14.

ME 187. Statistical Engineering. 3+0, Cr. 3. An introduction to the application of statistics and probability theory in the solution of engineering problems. Concepts of variance, tolerance, and statistical properties of engineering elements are applied to design and production problems. The algebra of normal functions, engineering economics, and statistical quality control techniques are related to manufacturing, reliability, and maintainability. Prerequisite: Mathematics 77 or concurrent registration. Not offered after Fall Semester 1982.

***ME 188. Production Operations and Systems.** 2+2, Cr. 3. An analysis of production operations including both physical systems which produce goods and services, and management systems which provide decisions, information, and control data. Course emphasis is placed on analysis, synthesis, and improvement of individual operations within the production system. Prerequisite: senior standing in mechanical engineering.

ME 190. Independent Study Project I. 1+3, Cr. 2. The application of theoretical and experimental engineering concepts and mathematical principles in the analysis, design, or investigation of an engineering system. Individual problems in the field of mechanical engineering to be selected by the student with the approval of the mechanical engineering faculty. Prerequisite: senior standing in mechanical engineering.

ME 191. Independent Study Project II. 1+3, Cr. 2. A continuation of ME 190.

***ME 194. (Formerly ME 149). Topics In Mechanical Engineering.** 7 weeks or 14 weeks. Cr. 2-3. The investigation of mechanical engineering topics of special interest. Prerequisite: consent of the chairperson of the department. Offered upon sufficient demand.

*Elective courses.



PT

COLLEGE OF NURSING

Dorothy Paulsen Smith, Ph.D.
Dean

Professor

Dorothy Paulsen Smith, R.N.
Ph.D., Yale University

Associate Professors

Claire L. Knaub, R.N.
M.N., University of Pittsburgh
May E. McCoy, R.N.
M.S.N., Vanderbilt University
Mary J. Sheehan, R.N.
M.A., New York University

Assistant Professors

Roberta S. Barlow, R.N.
M.S.N., University of Illinois—
Chicago Medical Center
Carlene H. Bartelt, R.N.
M.S., University of Arizona
Ruth M. Brown, R.N.
M.S., Indiana University
Sandra L. Kowalski, R.N.
M.S.N., St. Xavier College

Mary L. Logothetis, R.N.
M.S.N., DePaul University
Brenda K. Mostak, R.N.
M.S.N., Indiana University
Lois E. Nielsen, R.N.
M.S.N., Loyola University
Miriam B. Primich, R.N.
M.H.S., Governors State University
Miriam E. Sawyer, R.N.
M.S., Northern Illinois University
Vema L. Sweitzer, R.N.
M.N., Emory University
Ellen L. Thomas, R.N.
M.S.N., Case Western Reserve University
Margaret A. Wickert, R.N.
M.S.N., St. Xavier College
Vineva V. Yover, R.N.
M.S.N., University of Illinois

Lecturer

Carole A. Pepa, R.N.
B.S.N., Indiana University—Indianapolis

The College offers a four-year curriculum leading to the degree of Bachelor of Science in Nursing.

The College also admits registered nurses who want to earn a baccalaureate degree. Registered nurses may complete the requirements for the Bachelor of Science in Nursing degree in less than four years by passing standardized tests and transferring acceptable college credits.

OBJECTIVES. The purposes of the College are to prepare professional nurses who will:

Use the nursing process in caring for persons with varying complexities of health needs in a variety of settings;

Utilize interpersonal skills with patients/clients, colleagues, and the public to establish and maintain effective professional relationships;

Assume a leadership role in providing high standards of nursing care;

Assume responsibilities of a professional for the maintenance and the promotion of high standards of health care;

Recognize research as a scholarly method of validating and improving nursing practices;

Assume responsibility for continued personal and professional growth; and

Recognize the value of the individual's religious belief as an inner resource in motivating and guiding the life of the individual.

In accordance with the philosophy of Valparaiso University, the faculty of the College believes its responsibility is to foster intellectual, emotional, and spiritual growth of the student as an educated person and as a competent professional nurse. The curriculum, therefore, includes a wide variety of foundation courses in the natural and social sciences and in the liberal arts,

as well as courses which lead to the mastery of the principles and practices of nursing. Throughout, the development of Christian character and the inculcation of Christian ideals are emphasized.

GRADUATION REQUIREMENTS.

In order to realize its objectives, the College holds the students to the following requirements:

A. A minimum of 55 credits in nursing. The specific requirements are:

Introduction to Professional Nursing	6 credits
Maternal-Child Health	10 credits
Nursing in Chronic Illness	5 credits
Pathophysiology	3 credits
Nursing in Acute Illness	5 credits
Community Nursing	6 credits
Mental Health—Psychiatric Nursing	6 credits
Nursing in the Social Order	2 credits
Leadership in Nursing Care	6 credits
Advanced Concepts in Medical-Surgical Nursing	6 credits
	<u>55 credits</u>

B. A minimum of 60 credits from the College of Arts and Sciences. The specific requirements are:

Freshman Seminar	3 credits
Exposition and Argument	3 credits
Literary Studies	4 credits
History of Western Thought and Society	3 credits
Unity of Life	4 credits
Anatomy and Physiology	4 credits
Microbiology	4 credits
Human Nutrition	3 credits
General Chemistry	8 credits
Statistics	3 credits
Academic Area Studies Option <i>p. 36?</i>	3 credits
Religion	9 credits
Psychology	3 credits
Sociology or Social Analysis	3 credits
Human Growth and Development	3 credits
	<u>60 credits</u>

C. Electives:

In addition to meeting the requirements in Nursing and Arts and Sciences, the student must present for graduation a sufficient number of electives to bring the total number of semester credits to 124.

These electives are to be selected from the offerings of the College of Arts and Sciences.* One three credit elective must meet the Academic Area Studies Requirement (Chose one course).

Fine Arts or Fine Arts-Literature
Foreign Language 20 or 30
Non-Western or Third World Studies
Historical and Philosophical Studies

D. Requirements for Admission to Nursing Courses:

Students must achieve a cumulative grade point average of 2.0 to be admitted to the first nursing course, usually N52 (Introduction to Professional Nursing).

E. Progression:

Students must maintain a cumulative grade point average of 2.0 and must achieve no lower than a C- in each of the nursing courses. Any grade lower than C- earned in a nursing course must be removed by successfully repeating the course.

The records of students earning grades below C- in any required course are reviewed by the Scholarship Committee at the end of each semester to determine ability to progress or graduate and to make appropriate recommendations to the Dean.

MINOR. A student is allowed to declare a minor (including the General Business Sequence) in the College of Arts and Sciences, provided that no more than six hours of specified courses required for the nursing program are used in fulfilling the requirement of a minor. The minor will be noted on the student's academic record.

SUGGESTED COURSE PROGRAM.

FRESHMAN YEAR.

First Semester		Second Semester	
Chemistry 43	4	Chemistry 44	4
Biology 50	4	Biology 115	4
Psychology 51	3	Freshman Seminar 5	3
English 5	3	Sociology 1 or Social Analysis	3
History 5	3	Religion 5	3
Total Credits	17	Total Credits	17

SOPHOMORE YEAR.

First Semester		Second Semester	
Nursing 52	3	Nursing 53	3
Biology 110 or English 25	4	Nursing 100	3
Psychology 140	3	English 25 or Biology 110	4
Religion or Home Economics 45	3	Religion or Home Economics 45	3
Area Studies Option	3	Elective	3
Total Credits	16	Total Credits	16

*No more than six (6) credits earned in the College of Business Administration may be counted toward a degree of Bachelor of Science in Nursing. No more than four (4) credits in applied music, including ensemble, and no more than four (4) credits in Physical Education 10 may be counted toward a degree of Bachelor of Science in Nursing.

JUNIOR YEAR.

First Semester		Second Semester	
Nursing 103	5	Nursing 102	5
Nursing 104	5	Nursing 105	5
Psychology 100	3	Religion	3
		Elective	3
Total Credits	13	Total Credits	16

SENIOR YEAR.

First Semester		Second Semester	
Nursing 107	6	Nursing 106	6
Nursing 109	6	Nursing 108	6
Elective	3	Nursing 110	2
Total Credits	15	Total Credits	14

Total Credits: 124

Note: The student is responsible for providing transportation whenever it is necessary for off-campus clinical experience. Access to a car is necessary during the junior and senior years.

Undergraduate Credit.

52. Introduction to Professional Nursing I. 2+3, Cr. 3. Introduces the student to the theory, practice and research dimensions of the profession of nursing, focusing on the application of scientific principles in the use of the nursing process for providing patient care.

53. Introduction to Professional Nursing II. 2+3, Cr. 3. A continuation of Nursing 52. Prerequisite: Nursing 52.

100. Pathophysiology. 3+0, Cr. 3. Focuses on the underlying mechanics and dynamic nature of disease and on the rationale for management of acute and chronic disorders. Prerequisite: Biology 115.

Note: The prerequisites for the following courses are Nursing 52, 53, 100 and at least junior standing. See also requirements for admission statement above.

102. Nursing in Acute Illness. 3+6, Cr. 5. Emphasizes the identification and application of scientific principles in nursing care and a problem-solving approach in meeting the nursing needs of patients with acute medical and surgical conditions.

103. Maternal-Child Health I. 3+6, Cr. 5. A developmental approach to study the nursing care of families during pregnancy, childbirth and early childrearing. The major emphasis is on promotion and maintenance of reproductive health for individuals and families.

104. Maternal-Child Health II. 3+6, Cr. 5. Applies growth and development principles to the total health care of a child with special consideration and understanding of the effects of illness and hospitalization on the child and his/her family.

105. Nursing in Chronic Illness. 3+6, Cr. 5. Study and practice in the nursing care of persons who have a chronic illness with emphasis on the principles of rehabilitation, the aging process, and related psychosocial and physiological concepts.

Note: The prerequisites for the following courses are Nursing 102, 103, 104, and 105.

106. Leadership In Nursing Care. 3+9, Cr. 6. Focuses on the basic principles of administration, teaching, and research as they apply to the management of a patient care unit, to team leadership, and to the improvement of patient care.

107. Mental Health—Psychiatric Nursing. 3+9, Cr. 6. Focuses on the major concepts of mental health and on the role of the nurse in prevention and care of the mentally ill.

108. Advanced Concepts In Medical-Surgical Nursing. 3+9, Cr. 6. A seminar which focuses on applying the nursing process to give comprehensive care to patients with complex health problems through an interdisciplinary team approach.

109. Community Nursing. 3+9, Cr. 6. Delineates organized community efforts for the promotion of health and prevention of disease and focuses on the role of the public health nurse in the family and the community.

110. Nursing in the Social Order. 2+0, Cr. 2. Focuses on the influences of social, political, economic, and religious forces on the development of nursing and on the present status of nurses.

120. Topics In Nursing and Health Care. Cr. 1-3. An open topic course which may concern specialized areas of nursing (e.g. high-risk nursery care); current concepts (e.g. primary care); nursing concerns (e.g. play therapy, terminal illness); delivery of health services. Topics will be announced in advance. This course may be taken more than once, for a maximum of six credits, provided there is no duplication in topics. Prerequisites: junior standing, consent of the instructor, and consent of the Dean.

190. Independent Study In Nursing. Cr. 1-3. Independent study to be approved by the Dean and the advising nursing professor. Prerequisite: Junior standing in nursing major or consent of the Dean of the College of Nursing.



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GRADUATE DIVISION

*Kallay -
make up approval
sheet for him*

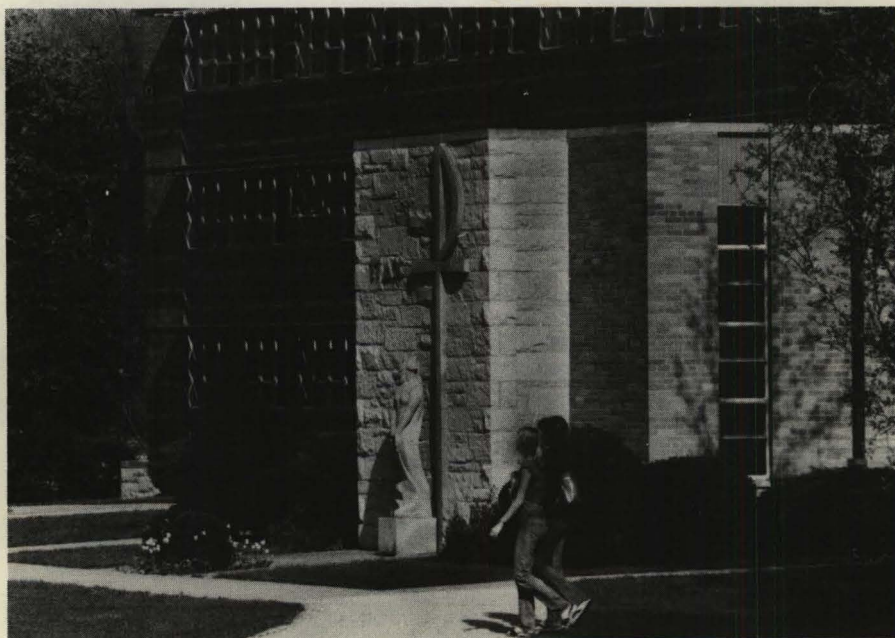
**Professor Ferencz P. Kallay, Ph.D.
Director**

The program of graduate studies was initiated by Valparaiso University in the Summer Session of 1963. It has continued through late afternoon and evening courses as well as summer sessions through subsequent academic years.

More than a thousand students have received a master's degree since the inception of this program. Since many of these alumni reside in Northern Indiana and teach in the public schools, the University has, through this program, made a major contribution to the life of the larger community in which it lives.

Three degrees are offered: Master of Arts in Liberal Studies, Master of Education, and Master of Music. Details concerning the requirements for these degrees may be found in the Graduate Division Bulletin, which may be obtained by visiting or writing to the Graduate Division, Valparaiso University.

The graduate programs are under the general supervision of the President and Faculty of the University. Its policies are determined by the Graduate Council, and the programs and regulations, as defined by the Council, are administered by the Director of the Graduate Division.



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SCHOOL OF LAW

Ehren

Charles A. Ehren, Jr., J.D.
Dean

John M. Farago, J.D.
Associate Dean

Professors

Richard P. Baepfer (Theology and Law)
Ph.D., The University of Chicago
Louis F. Bartelt
LL.M., Yale University
Charles A. Ehren, Jr.
J.D., Columbia University
Bert Z. Goodwin
J.D., The University of Chicago
Charles R. Gromley
LL.M., Georgetown University
Jack A. Hiller
LL.M., Yale University
Alfred W. Meyer
LL.M., Harvard University
Richard H. Stevenson
LL.M., Harvard University
Richard T. Stith III
J.D., Ph.D., Yale University

Associate Professors

Bruce G. Berner
LL.M., Yale University
Ivan E. Bodensteiner
J.D., University of Notre Dame
Paul H. Brietzke
J.D., University of Wisconsin
Ph.D., University of London

Philipp L. Brockington
J.D., Harvard University
Rosalie B. Levinson
J.D., Valparaiso University
John J. Potts, C.P.A.
J.D., Boston College

Assistant Professors

Paul N. Cox
LL.M., University of Virginia
Matthew P. Downs
J.D., Pepperdine University
M.L.S., California State University
at Fullerton
John M. Farago
J.D., New York University
Marcia L. Gienapp
J.D., Valparaiso University
Linda L. Long
J.D., Valparaiso University
David A. Myers
J.D., University of Illinois
David E. Vandercoy
LL.M., New York University

For more than a century, the School of Law of Valparaiso University has sent its graduates into private and corporate practice as well as government service. Many have had distinguished careers and have risen to the high levels of their profession.

The School was founded in 1879 as the Northern Indiana Law School and became a part of Valparaiso College, now Valparaiso University, in 1905. The School moved into quarters in DeMotte Hall in 1926 and into Wesemann Hall in September 1963.

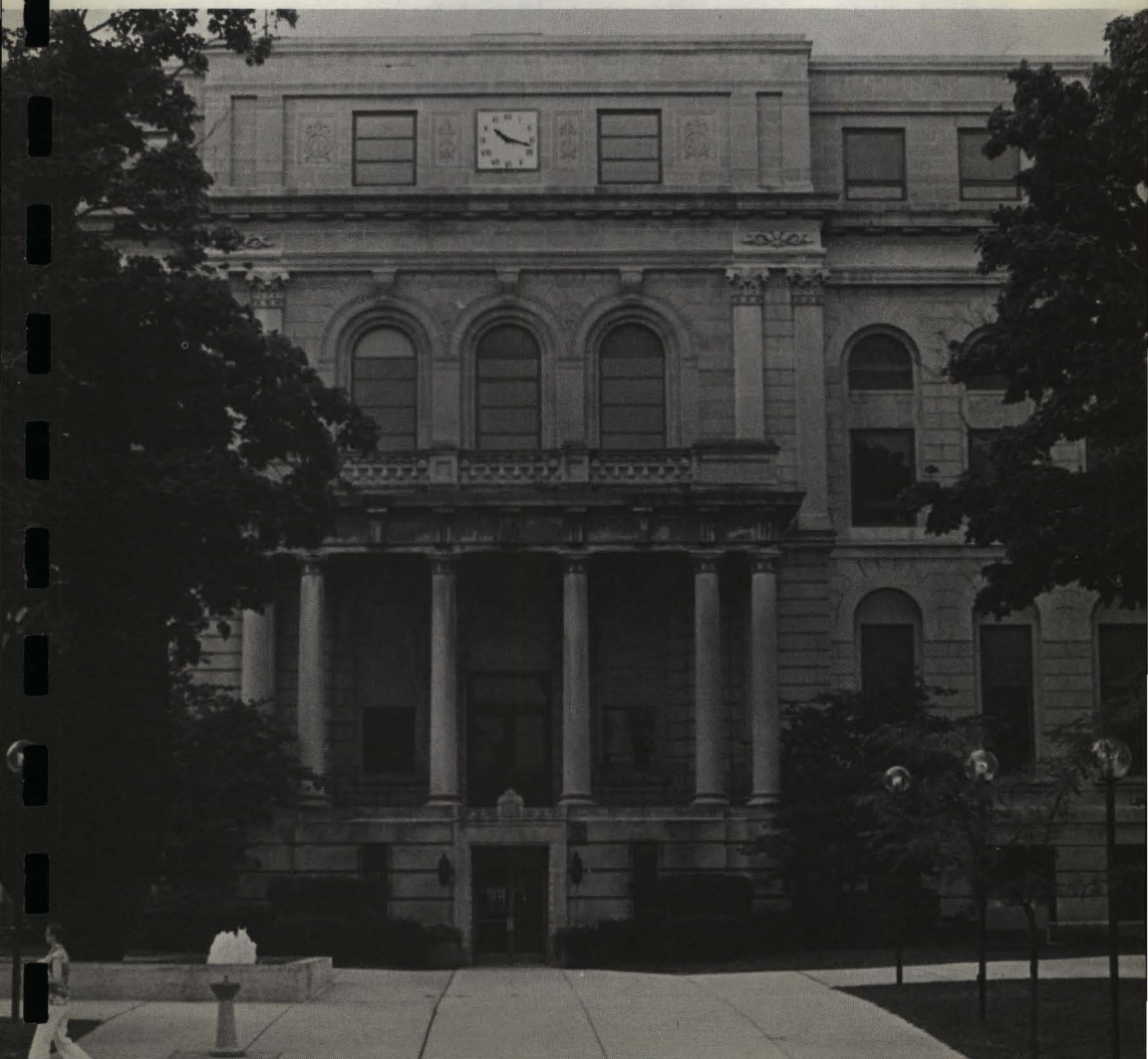
By severely limiting enrollment, the faculty maintains a context for learning in which the rigors of legal education are experienced in a setting that is supportive and humane. The School seeks a sense of community, of individuals with mutual interests working together toward shared objectives. Together with this value, the School respects each person's individuality and the importance of analytic, conceptual, and interpersonal skills in the training of new lawyers. Classes range from small seminars and discussion sections, with fewer than ten students, to large lectures conducted according to the traditional Socratic method with approximately one hundred students. As a law school, in a church-related university, it seeks to manifest concern for the needs of its students and awareness of the problems faced by society and the profession.

The School was approved by the American Bar Association in 1929, and, since that time, it has been accredited continuously by that Association. In 1930, it was admitted to membership in the Association of American Law

Schools. The degree of Juris Doctor, which is granted by the School, is approved by the Board of Regents of the University of the State of New York. Valparaiso University, of which the School is a part, holds membership in the North Central Association of Colleges and Schools.

The Law Library with its more than 125,000 holdings is also available to all undergraduate students at the University.

Detailed information concerning the School's admission policies, costs, and curriculum may be found in the School of Law's *Bulletin*, which may be obtained at the Office of the Dean of the School of Law.





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OTHER ACADEMIC SERVICES:
SUMMER SESSION
EVENING PROGRAM

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THE SUMMER SESSION. This program, an integral part of the University, serves directly the cultural, vocational, and professional needs of teachers in service, persons interested in specific courses (with or without college credit), students who wish to accelerate their academic progress, or new students who desire to begin academic work on the college level.

Students enrolled full time in the Summer Session normally earn nine semester hours of credit. These credits have the same value as those earned during the regular year and are transferable.

Courses on the undergraduate level will be offered in the following subject matter areas: Accounting, Art, Biology, Economics, Education, English, Finance, Foreign Language, Geography, History, Management, Mathematics, Music, Philosophy, Physical Education, Physics, Political Science, Psychology, Social Work, Sociology, Speech and Drama, and Theology.

Courses on the graduate level will be offered in Art, Economics, Education, English, Geography, History, Music, Political Science, Psychology, Sociology, Speech and Drama, and Theology.

A Mini Summer Session of three and one-half weeks will be offered from May May 18 to June 11 in 1981. This short term session is designed primarily for our resident students, but it is available to others as well.

The combination of the Mini and the regular Summer Sessions permits students to earn almost a semester of credits during the summer months.

From time to time, Summer Educational Tours are conducted. Information regarding tours is normally included in the Mini and Summer bulletins.

Summer Session Fees (June 15 to August 5, 1981).

Undergraduate Visiting Student	\$15.00
Matriculation	5.00
Tuition per credit hour (Undergraduate)	65.00
Tuition per credit hour (Graduate)	70.00
Private Music Lessons (in addition to tuition fee)	
One private or class lesson in applied music	95.00
Beyond one applied music subject	55.00*

THE EVENING DIVISION. This program, combining the services of the former extension and adult education program, was organized in the Spring of 1963 to make the offerings of all colleges and departments available to the residents of the greater Valparaiso community, as well as to the full-time students on our campus.

The course offerings are designed to serve the needs of employed persons who desire to continue their college education for self-improvement or to complete requirements for a degree or for teacher certification. Evening courses are the same in content, objectives, and credit value as corresponding day courses.

*For each subject.

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Admission to the Evening Division. Admission is open to any student who has earned a High School diploma or who can qualify on the basis of a GED test. Students who have not matriculated in the undergraduate program and who have never attended Valparaiso University must apply for admission as special students to the Director of the Evening Division. Students who plan to complete requirements for a degree from Valparaiso University and students who plan to complete the requirements for teacher certification must file applications for admission with the Director of Admissions of the University.

Students who wish to take a graduate course must be admitted to the Graduate Division. Requests for applications should be addressed to the Director of the Graduate Division.

Registration in the Evening Division. Matriculated campus undergraduate students register for Evening Division courses on the regular registration form at the time of official registration for day courses. Such students may register in the Evening Division for up to six semester hours, provided that their total course load in evening and day courses does not exceed the maximum load permitted according to the catalog. Any day undergraduate student who registers for a given semester in day and Evening Division courses will be considered to be a day student and will be charged the regular charges applicable to a day student.

Registration in the Evening Division for those taking evening courses *only* is conducted according to the schedule announced in the brochure published in advance for each semester.

The regular time schedule lists all courses offered by all departments and colleges of the University in numerical order with evening courses prefixed by "Ev."



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REGISTRATION
ACADEMIC POLICIES

REGISTRATION

REGISTRATION. All students are expected to register on the official registration days of each semester as listed in the University Calendar.

***Responsibility Assumed by Registration.** By registering, the student subscribes to the terms and conditions, financial and otherwise, which have been set forth in these announcements. One of these is that every first-time, full-time student and every student who has not been registered during the previous sixteen month period must submit to the University Medical Center a report of his/her medical history, physical examination, and required immunization.

Maximum and Minimum Registration. The maximum registration for a full program for students in the College of Arts and Sciences is 17 semester credits. For students in certain professional programs, the authorized maximum registration is given in the following table.

Number of Credit Hours Without Petition:

College of Arts and Sciences:

In all departments except as required in special authorized curricula (e.g., the B.M.E. program) and for students preparing for licenses in elementary and secondary school teaching Maximum, 17 Credits
Students preparing for licenses in elementary- and secondary-school teaching Maximum,

18-19 Credits

College of Business Administration Maximum, 17 Credits

College of Engineering, except as required in certain block schedules Maximum, 20 Credits

College of Nursing Maximum, 17 Credits

School of Law Consult the appropriate bulletin

Students who maintained a standing of three (3.00) during the previous semester may register for extra work, provided their formal petitions for such work are granted by the appropriate committee. Freshmen will not be allowed to carry extra work during the first semester.

The minimum registration for a full-time student is 12 semester credits.

Course Prerequisites. Students will be held responsible for meeting the prerequisites of all courses for which they enroll. In unusual cases, the appropriate committee may waive certain prerequisites upon formal petition by the students concerned.

Change of Program: Policy and Procedure. Students are permitted to alter the status of their registration in courses up to the time of the calendar deadlines published in the University catalog. The forms provided for this purpose by the Office of the Registrar call for the appropriate authorizing signatures. Withdrawing from a course or changing registration to or from S/U or Audit are matters for serious reflection. Students should seek the counsel of their academic advisers, course instructors, and chairpersons of the departments involved as the case may require.

*For students in the School of Law, consult that division's bulletin.

Once the published deadlines have passed, students will be held responsible for completion of courses under the terms of the registration they have selected. Changes in registration after these deadlines will be allowed only in exceptional cases where the student demonstrates that extreme contributory circumstances have rendered his or her registration in a course invalid. Serious physical disability, prolonged illness, or the death of a loved one—documented occurrences of this kind—can be considered reasonable grounds for requesting by petition an exception to the regular calendar deadlines. The integrity of the Valparaiso University transcript and ultimately of the University itself demands that special exceptions be permitted only when special circumstances prevail. Neither unsatisfactory academic performance, whether caused by inability or by lack of application, nor lack of adequate evaluation of a student's performance in a course prior to the deadline, will in and of themselves be sufficient reason for petition.

Petition blanks for changing course registration after the deadline period are provided by the Office of the Registrar. After consultation and recommendation, the student should take completed petition blanks to the Dean of the student's college for action. The petitioning student has the right of appeal to the Subcommittee on Appeals of the Educational Policy Committee. The petitioning student should append reasons for submitting his appeal to the Subcommittee.

There is a complete adjustment in the tuition and general fees during the first 7 class days (drop/add period) of a semester. After the drop/add period and until the end of the seventh week of a semester, the tuition fee is adjusted according to a schedule which can be viewed in the Office of the Registrar. These rules apply only if students change from full-time to part-time status or conversely or if part-time students adjust their part-time academic class loads.

Students may officially cancel enrollment in a course during the first 7 class days without reflection on the students' permanent records. After this date, students may officially cancel enrollment in a course with a grade of W on the students' permanent records. Students are not permitted, without approval, to cancel enrollment in a course after the end of the ninth week of a semester.



ACADEMIC POLICIES

MARKING SYSTEM AND QUALITY POINTS. The grade marks reported and recorded in the Registrar's Office are as follows. The corresponding number of quality points per credit hour are also indicated.

Grade		Quality Points Per Credit Hour
A	) Excellent	4.0
A—		3.7
B+	) Above Average	3.3
B		3.0
B—		2.7
C+	) Average	2.3
C		2.0
C—		1.7
D+	) Below Average	1.3
D		1.0
D—		0.7
F	) Failure	0.0

NOTE: Except for the grade of F, all grades give credit toward graduation. A student who receives a grade of D— (0.7 points per credit hour) is advised not to enroll in other courses for which the given course is a prerequisite.

I. Incomplete. The grade I (Incomplete) may, at the discretion of the instructor, be given to a student whose completed work in a course indicates the probability of his/her passing the course but who has failed to complete a segment of the assigned work of the course because of circumstances beyond his/her control. An I (Incomplete) received in one semester or summer session must be removed by the beginning of the official examination period of the next succeeding semester or it will automatically become a grade of F (0.0 points per credit hour). The student's deadline for submitting the outstanding work to the instructor shall be one full week prior to that date.

W. An authorized withdrawal. (See Change of Program). This mark carries no credit.

S. Satisfactory; meets course objectives. Hours with grade of S count toward graduation but are not counted in computing the student's standing. All regular work of the course is required of students electing the S/U registration. It is assumed that work should be of a quality which is comparable to a grade of C— (1.7 points per credit hour) or better to warrant the grade of S.

U. Unsatisfactory; does not meet course objectives. Hours with grade of U do not count toward graduation and are not counted in computing the student's standing.

Grades of S and U are used in certain courses which are so designated in the course descriptions contained in the University Bulletin. (See page 209 for further use.) They may be used in other courses only in exceptional cases

†For the School of Law and the Graduate Program, consult the appropriate division's bulletin.

when approved by the dean of the respective college and the Vice President for Academic Affairs.

Any student withdrawing from a subject without first securing the official permission of his/her adviser will receive a grade of F (0.0 points per credit hour) in that subject for the semester.

Only in exceptional cases, such as prolonged or serious illness, will the appropriate committee permit a student to withdraw from a course without a grade of F (0.0 points per credit hour) after the deadline for withdrawing from a course with the grade of W.

ADMISSION TO COURSES ON A SATISFACTORY/UNSATISFACTORY BASIS. Certain courses normally result in S/U grades, as noted in the catalog course descriptions. An undergraduate student may take, in addition to any such course or courses, one course, normally letter graded, each semester on a Satisfactory/Unsatisfactory basis, subject to the following conditions:

A. Such courses must not be selected from:

1. the student's major field or fields;
2. the required courses for any professional degree or pre-professional program, except for liberal arts electives or other courses approved by the dean of the student's college;

B. Such registration must be signed by the student's adviser;

C. Decision to elect a course on such a basis is to be made by the end of the fourth full week of the semester. This deadline applies proportionately to the Mini, Summer Sessions and 7-week courses.

NOTE: In selection of the S/U option, the student is advised to discuss the implications of that option with his/her adviser concerning entrance into professional schools.

ADMISSION TO THE COURSE INTENSIFICATION PLAN. A student may propose a special project for earning one extra credit in one liberal arts course in which he/she is enrolled in a given semester. This opportunity is part of the University's Course Intensification Plan. The following regulations pertain to this option for a student:

1. The course must be a liberal arts course.
2. The course must be offered in the time schedule for 3 or more credits.
3. The initiative and responsibility for developing a satisfactory proposal is expected to lie with the student.
4. The proposal is subject to the approval of the instructor of the course.
5. Approved proposals must be filed in the Office of the Registrar during the period specified in the academic calendar.

ADMISSION TO COURSES AS AN AUDITOR. A classified student may register in a course as an auditor only with the permission of his/her adviser and the chairperson of the department concerned. An auditor may not be admitted to the final examination and is never granted credit for the course audited. No additional fee is charged when the student pays full tuition.

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A mature student, not regularly enrolled at the University, who desires to take courses without credit may enroll as an auditor upon receiving the approval of the instructors concerned and the dean of the college. Payment of an auditor's fee is required.

CREDIT HOURS. A credit represents one hour of recitation or lecture, or two or more hours of laboratory a week for one semester. If time outside of the laboratory is required to prepare laboratory notes, two hours may be equivalent to one hour of class work. Drawing, shopwork, and other courses demanding no outside preparation require a minimum of three hours for one credit. For the exact number of hours, see the respective courses.

***DEFINITION OF THE STANDING OF A STUDENT.** A student's standing is determined by the ratio of the total number of quality points to the total number of hours attempted in all the work at Valparaiso University. Thus, a student who makes an average mark of 2.00 throughout a course of 124 semester hours will have 248 quality points, 124 credits, and a standing of two (2.00). An average mark of 3.00 will give the student 372 quality points, 124 credits, and a standing of three (3.00). When a semester's work is to be considered "standing," it is understood to be the ratio of the number of quality points gained to the number of credits scheduled.

SEMESTER REPORTS. Reports are sent only to students and at the address indicated by them on the official registration form. These reports are considered by the University to be the progress records maintained by the University and furnished to the students as required by the Veterans Administration DVB Circular 20-76-84.

CLASSIFICATION OF COURSES. The courses offered by the University are classified as (a) lower division courses, numbered 1-99; (b) upper division courses, numbered 100-199; and (c) graduate courses, numbered 200-399.

CLASSIFICATION OF STUDENTS. In the College of Arts and Sciences, a student must have 24 semester credits and 48 quality points to be classified as a sophomore; 56 semester credits and 112 quality points to be classified as a junior; 88 semester credits and 176 quality points to be classified as a senior.

In the College of Business Administration, a student must have 24 semester credits and 48 quality points to be classified as a sophomore; 56 semester credits and 112 quality points to be classified as a junior; 88 semester credits and 176 quality points to be classified as a senior.

In the College of Engineering, a student must have 24 semester credits and 48 quality points to be classified as a sophomore; 60 semester credits and 120 quality points to be classified as a junior; 94 semester credits and 188 quality points to be classified as a senior.

In the College of Nursing, a student must have 24 semester credits and 48 quality points to be classified as a sophomore; 56 semester credits and 112 quality points to be classified as a junior; 88 semester credits and 176 quality points to be classified as a senior.

A student in the School of Law should consult that division's bulletin.

*For exceptions, see page 213.

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READMISSION OF FORMER STUDENTS TO UNDERGRADUATE AND PROFESSIONAL PROGRAMS. A student who has fully matriculated at Valparaíso University and who, for some reason (except students enrolled in the Deaconess Training Program—these students usually spend one year in in-service training), has interrupted his/her studies must apply for readmission to the University through the Readmissions Committee. The request for readmission is to be sent to the Registrar.

Applications for readmission must be made at least one week prior to the registration date of the term in which the student wishes to enroll. Applications will not be accepted after this date.

A student being readmitted must present the necessary information such as records of attendance and grades at other colleges, and a new medical examination report, if he/she has been out of school during the previous sixteen month period, before action will be taken on his/her request to be readmitted.

Credits earned more than fifteen years ago (either at Valparaíso University or at another accredited institution) are subject to re-evaluation and, if accepted by the appropriate University standing committee, may be subject to validation by the first year's work (30 semester credits) completed in residence with a 2.00 average.

The case of each student applying for readmission will be presented to the Readmissions Committee. The student will be notified by the Registrar of the Committee's decision.

***ADVANCED STANDING—RESIDENT STUDENTS.** Any resident student who has taken academic course work at any other accredited educational institution must request the Registrar of that institution to send an official transcript to the University's Office of the Registrar, where an evaluation will be made for possible acceptance of transfer credits. Courses with grades of "D" will be accepted for graduation, provided a grade-point average of 2.00 or better is attained on work completed at any one institution, and which has not previously been evaluated.**

Resident students who wish to take courses at other approved schools concurrently with their Valparaíso work should refer to the appropriate paragraph noted under "Residence Requirements" on page 214.

DECLARATION OF A MINOR IN THE PROFESSIONAL COLLEGES. Students in the professional colleges may be allowed to declare a minor in the College of Arts and Sciences, provided that no more than six hours required of the professional program are used in fulfilling a minor offered by the College of Arts and Sciences, and to have this minor noted on the students' official transcript records.

TRANSFER TO ANOTHER PROGRAM. If a student transfers from one major or program of studies to another, all requirements of the new specialization must be met. Such a transfer will subject credits previously earned to a re-evaluation. In certain cases the change of program may result in some

*Credit for workshops, institutes, or travel-study ordinarily will be granted only for work taken at Valparaíso University. In cases of exception to the preceding restriction, transfer credit for institutes or workshops usually will not exceed one credit per calendar week of instruction. Transfer credit for travel-study programs usually will not exceed two credits per calendar week.

**For students in the College of Business Administration, courses in business and economics with grades of "D+" or less will not carry transfer credit.

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loss of credit. Therefore, such transfers may not be made without the written approval of the advisers and deans concerned. Necessary forms may be obtained from the Registrar.

UNIVERSITY COURSE. Each undergraduate student, except for a student in the College of Engineering or in the College of Nursing, is required to meet this requirement at the junior/senior level. These courses are designed to address problems and questions of meaning and significance that develop the student's knowledge, skills, and interests and relate them to specific topics of human concern. The courses may be comparative or integrative studies in the arts, humanities, social sciences, or natural sciences.

The following restrictions apply to these courses:

- A. There are no prerequisites, stated or implied;
- B. Not open to freshmen or sophomores;
- C. These courses are not applicable towards an academic major in any department.

The following procedural guidelines apply to these courses:

- A. These courses will have no direct departmental affiliation and will be designated as University Course 100.
- B. Specific courses to fulfill this requirement will be listed and described only in the Advanced Course Selections and Semester Time Schedules.
- C. These courses are a resident requirement. In some cases, transfer students may be allowed to substitute an appropriate course taken at another institution provided the substitution is approved by the General Education Officer.

EXAMINATIONS. The regular written examinations of the University are held at the close of each semester. Each examination is usually limited to two or three hours.

In addition to the regular prescribed examination, written tests are given from time to time, at the discretion of the instructor.

The semester examinations are conducted according to a published schedule.

All examinations in courses of less than 3 credits will be conducted during regularly scheduled class periods. Deviations from this policy for final examinations must be approved by the dean of the college.

The policy concerning the use of a final examination in a course will be determined by the professional college or the Arts and Sciences department which offers the course.

ACADEMIC DEFICIENCY. In the College of Arts and Sciences, the College of Business Administration, the College of Engineering, and the College of Nursing, students whose cumulative resident grade-point average falls below 2.0 will be considered academically deficient and may be denied the privilege of continuing their studies at the University, unless they succeed in improving the quality of their academic work to the satisfaction of the faculty during the following semester. Notice of such deficiency will appear on the student's grade report. The Dean of each college will establish procedures

adequate to give students who are academically deficient timely warning of their being denied continuation of their studies.

Deficiency warnings are sent to parents and guardians of all undergraduate students in the day program who are less than twenty-one years of age, unless the student who is not a dependent of his/her parents or guardians notifies his/her academic dean to the contrary.

For regulations concerning academic deficiency in the School of Law, see that division's bulletin.

DROPPED FOR LOW SCHOLARSHIP. Whenever, in the judgment of an academic dean, a student who is academically deficient would benefit from an interruption of this work in a particular college of the University, the dean will notify the student in writing that he/she has been dropped and will specify a) the period of time for which he/she has been dropped and b) the conditions which he/she must satisfy in order to be readmitted.

ABSENCE FROM CLASS. The following regulation concerning absence from class has been adopted by the Faculty:

Every student is expected to attend every one of his/her classes unless his/her absence has been approved by the instructor concerned or by the appropriate dean.

Absence from class is primarily a matter between the student and the instructor of the class. It is the student's responsibility to discuss with his/her instructor the reason for his/her absence and to learn what make-up work may be required.

REPETITION OF COURSES FOR CREDIT. Unless a course may be repeated for credit, only the credits, grade, and grade points received the last time a course is taken by a student at Valparaiso University shall be used in determining credit for graduation and the cumulative grade-point average(s). A grade of W shall be excluded from this policy.

***WITHDRAWAL FROM THE UNIVERSITY.** A student who wishes to withdraw from the University for the remainder of a semester or session (see official calendar, pages 3 and 4, for deadline date) should apply to the Vice President for Student Affairs for a permit to withdraw. Upon return of the permit properly signed to the Office of the Registrar, the Registrar will authorize the return of such fees as are refundable. In the case of a student who is less than twenty-one years of age, the parent or guardian is notified of the withdrawal by the Vice President for Student Affairs. If a student withdraws after the seventh week of a semester, he/she is ordinarily not granted readmission for the following semester, unless unusual circumstances such as severe illness caused the withdrawal.

The term "honorable dismissal" refers to conduct and character only, not to class standing and grades. It will not be granted unless the student's conduct and character are such as would entitle him/her to continue in the University.

A student who withdraws from the University without authorization is not entitled to refunds of any kind and the instructor of each subject in which the student is enrolled is required to report a final grade of F to the Registrar.

*For the School of Law, consult that division's bulletin.

GRADUATION.

Responsibility of Student. Every candidate for a degree is personally responsible for meeting all requirements for graduation. No University official can relieve him/her of this responsibility.

A student in the undergraduate program may fulfill requirements for graduation under any catalog during his/her years of attendance, beginning with the year he/she first entered the University, provided there is no absence of five or more years* between periods of attendance.

A student who returns to the University after an absence of five or more years* may no longer be a candidate for a degree on the basis of the catalog requirements covered by his/her previous years of attendance, but must fulfill for graduation all the requirements and provisions beginning with the catalog of the year in which he/she re-enters the University. In addition, credits earned at Valparaiso University more than fifteen years ago are subject to re-evaluation and shall not be accepted toward graduation requirements unless approved by the appropriate Faculty or University Senate Standing Committee.

In order to receive a second degree, a student must earn at least thirty semester credits and sixty quality points in excess of the total number of semester credits required for the first degree and must, in addition, fulfill all the specific course requirements for the second degree.

Students in the graduate program should refer to that division's bulletin for specific information.

Credit and Quality Point Requirements. Candidates for graduation with the associate's degree or the bachelor's degree must have a standing of two (2.00) in all their work at Valparaiso University. In addition, candidates for the bachelor's degree must have a standing of two (2.00) in any of their concentration options, including minors, based upon their work at Valparaiso University. Also, candidates for the associate degree must have a standing of two (2.00) in all their science courses at Valparaiso University. In the computation of these standings, grades of D+, D, D-, and F are included. Candidates for the master's degree or the J.D. degree should consult the appropriate bulletin for this particular requirement.

Residence Requirements. Irrespective of other degree requirements, candidates for all bachelor's degrees must meet the following requirements in residence at Valparaiso University: 1) at least one-half (a minimum of 15 credits in the area of foreign languages) the number of credit hours required for any concentration option, including minors; 2) at least 3 credits in religion; 3) one course designated as University Course where required (Colleges of Arts and Sciences and Business Administration); and 4) at least 30 of the last 40 credits presented for the degree. Candidates for the J.D. degree or the master's degree should consult the appropriate bulletin for this particular requirement.

Ordinarily, credit is not given for courses taken at other approved schools or for correspondence courses taken during a student's residence at the University. Any exception to this policy must have the approval of a student's adviser, his/her dean, and the Committee on Academic and Professional Standards.

*For the School of Law, consult that division's bulletin.

Application for Degrees. A student who wishes to receive his/her degree at the end of a Fall Semester must make formal application for the degree on a form provided for this purpose by the Registrar's Office not later than the preceding April 15th. A student who wishes to receive his/her degree at the end of a Spring Semester or a Summer Session, must make formal application for the degree on a form provided for this purpose by the Registrar's Office not later than the preceding October 15th.

A Summer Session student not enrolled in the previous academic year who expects to receive a degree at the end of a Summer Session must make application for the degree at the beginning of that Summer Session.

If, for any reason, a student (except graduate students) does not meet the requirements for graduation after filing his/her application, the student must file a new formal application (no charge) by the beginning of the session in which the student now expects to receive the degree.

Candidates for degrees (August and December), who expect to complete requirements in absentia, must be sure that all course work is completed and the session ended by the deadline date set for resident candidates. Official transcripts must be on file in the Office of the Registrar no later than ten days after the close of a semester or session. This does not apply to May candidates, since these candidates must be certified prior to the May Commencement Exercises. Further information will be furnished upon request from those candidates completing degree requirements in absentia.

Presence at Commencement. A candidate for graduation at the end of the spring term must be present at commencement in order to receive his/her degree. Degrees are not conferred in absentia, except on special permission from the President.

A student who completes his/her work toward a degree at the end of a Fall Semester or of a Summer Session may be granted the degree at that time.

Bachelor's Degrees with Distinction. A student who has been in attendance at Valparaiso University at least three years and who has maintained a standing of 3.60 in his/her work at this institution will be graduated "*With High Distinction.*" A student who has been in attendance for only two years must maintain a standing of 3.80 to be eligible for this honor.

A student who has been in attendance at least three years and who has maintained a standing of 3.40 in his/her work at Valparaiso University will be graduated "*With Distinction.*" A student who has been in attendance for only two years must maintain a standing of 3.60 to be eligible for this honor.

For the professional degree (J.D.), see the School of Law bulletin.

The number of years completed in this institution is determined by the number of semester hours earned and not by the time spent in residence.

HONORS IN SCHOLARSHIP. An undergraduate student (freshman, sophomore, junior, senior) who achieves a standing of 3.50* in any semester (except the last semester prior to graduation) will be awarded honors, provided that he/she received no grades of I or U at the official end of the semester concerned, and that he/she was registered for at least 14 hours of work for that

*For the School of Law, consult that division's bulletin.

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semester in the College of Arts and Sciences (12 hours in the Washington Semester Program or the Semester on the United Nations or the Overseas Study Programs), for at least 15 hours in the College of Engineering, for at least 14 hours in the College of Business Administration, or for at least 14 hours in the College of Nursing (13 hours in the third year of the nursing program).

Graduating senior honors are announced at Commencement and are based on the work of the last two semesters. This particular honor* is based on the same rules as for class honors except the student must have been registered for: at least 28 hours in the Colleges of Arts and Sciences, Business Administration, and Nursing; and at least 30 hours in the College of Engineering. The appropriate numerical adjustment shall be made for those students who registered in a special program as noted in the preceding paragraph.

TRANSCRIPTS OF ACADEMIC RECORDS. The Family Educational Rights and Privacy Act of 1974 (the Buckley Amendment) provides, in part, that the institution will maintain the confidentiality of student academic records. The University's entire policy may be found in the *Student Handbook*.

No one outside the University shall have access to nor will the University disclose any information from student academic records without the written consent of students, except to persons, organizations, or agencies which are permitted to receive such information under the Act.

With regard to transcripts of academic records, the University's policy covering "dependency" determination is to consider all undergraduate students in the day program as "dependent," unless they specifically inform the Office of the Registrar at the beginning of each academic year that they consider themselves to be "independent."

Official transcripts of academic records are released only upon the written request of the student.

*For the School of Law, consult that division's bulletin.



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EXPENSES
HOUSING REGULATIONS
TUITION AND FEES
REFUNDS

**EXPENSES

EXPENSES (Undergraduate and Professional Tuition—Full-Time Students).

College or School	Each	Academic Year
	Semester	(2 semesters)
College of Arts and Sciences—	\$1,950.00	\$3,900.00*
College of Business Administration—	2,025.00	4,050.00
College of Engineering—	2,100.00	4,200.00
College of Nursing—	2,025.00	4,050.00
School of Law—	2,425.00	4,850.00

FEES. The General Fee for each semester amounts to \$86.00 and includes a Student Senate Fee of \$17.50. The fee is paid by all full-time students registered for at least 12 credit hours per semester. The fee is used to defray the cost of the following services: Health and hospitalization program, Union and gymnasium building fund requirements, and co-curricular activities. The Student Senate Fee is administered, by authorization, as the Student Senate determines.

Laboratory fees are not charged for regular courses, except for those education courses involving field work and the Professional Semester. All students enrolling for laboratory courses are financially responsible for breakage or damage to equipment. Instructors report such damage to the Business Office and the student or the parent is billed for the cost of repair or replacement.

Applied Music Fees. The University encourages students to continue applied music instruction by charging modest fees for private lessons.

Non-music majors will pay a fee of \$115.00 per semester for instruction in one private or class lesson in applied music with no additional charge for use of instrument or practice room. Students taking private lessons beyond one applied music subject will pay an additional \$65.00 for each subject.

Students taking private music lessons are held responsible for making arrangements with the instructor to complete all lessons during the semester. If the student is unable to complete within the semester the series of lessons for which he/she was assessed, a report should be made immediately to the chairperson of the department by the student.

†TUITION AND FEES FOR PART-TIME STUDENTS (Undergraduate and Professional Programs). Students who register for no more than 11 credit hours are classified as part-time students.

Such students pay a tuition charge of \$170.00* per credit hour for all programs except the law program (School of Law) where the charge is \$210.00 per credit hour. This charge does not include the use of facilities of the health service nor participation in the student insurance plan.

Auditors pay \$150.00 per credit hour equivalent.

*Music majors add \$55.00 per semester (\$110.00 per year). This includes all applied music fees.

**Any day student who registers for a given semester in day and Evening Division classes will be considered to be a day student and will be charged the regular charges applicable for a day student. A day student may not take more than 6 hours in the Evening Division Program.

†For Veterans Administration purposes, a full-time undergraduate student is one who is carrying a minimum of 12 semester credits for each semester of the school year (6 semester credits in a summer session).

Tuition and fees for students enrolled only in courses in the Evening Division offered by the University are listed in a separate publication.

HOUSING REGULATIONS

HOUSING REGULATIONS. The University's regulations require all freshmen, sophomores, and juniors* to live in University residence halls. Exceptions are made for veterans, those who at the fall registration will be 21 before the next January 1, those living with parents or spouse, and sophomore and junior fraternity men who live in a fraternity house.

Senior students may apply to live in University residence halls. Senior, graduate, and law students may examine, in person, in the Housing Office a listing of rooms in private homes, apartments, and homes for sale or rent. Every landlord whose property is listed has signed a non-discrimination statement. Students desiring such accommodations should plan to visit campus at least six weeks prior to the semester of enrollment to inspect the available listings and make arrangements with the individual landlords. The University is not involved in arrangements between students and landlords, except in the event of racial discrimination.

Application for University housing is mailed to each new student with the Permit to Enter form. This application and the \$100.00 deposit (tuition and housing) should be returned to the Admissions Office as soon as possible. All checks should be made payable to Valparaiso University Association, Inc. A student who occupies a room in a residence hall will have \$50.00 credited to his/her entire account. All returning students for whom the University can provide housing in its own residence halls, and who desire such accommodations for the Fall Semester, are required to make an advance room deposit of \$50.00 on or before the date indicated by the Housing Office.

Assignments to a residence hall will be made by the Housing Office in the order in which they are received. The University will endeavor but cannot guarantee to assign accommodations according to the preferences indicated by the student.

Refunds of one-half (50%) of the Housing Deposit will be given if a written notice of cancellation is received by the Housing Office on or before June 1 for new students and July 1 for returning students for the Fall Semester; on or before December 1 for new and returning students for the Spring Semester. No refund will be given after these dates. If a student is denied admission or readmission or if the University should be unable to provide housing, the full amount of the deposit will be refunded.

An Agreement is entered into by each student assigned University housing which makes it mandatory for him/her to occupy the residence hall space assigned for both semesters of the school year excluding vacation periods. The student is permitted to move out of the residence hall only if he/she withdraws from the University or graduates.

Roommate preferences should be listed on the housing application. Freshmen are notified in July of their roommate assignments. The specific room

*Class standing is determined by academic standards.

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number in the residence hall will be given when the student arrives on campus.

Arrival at the residence hall for new freshmen and new transfer students should coincide with the first day of orientation activities, to be announced later. All students are expected to report immediately to their assigned residence hall when they arrive on campus for specific room assignment. Luggage may be sent a week prior to the opening of the residence halls. Any changes in the residence hall assignment must be submitted in writing and receive permission from the Housing Office. No guest accommodations are available in the residence halls.

All rooms in the University residence halls are provided with the necessary basic furniture. Occupants generally supply their own bedding, pillows, towels, lamps, and throw rugs if desired. Coin operated washers and driers and ironing boards are also provided within each residence hall. Several laundries and dry cleaning establishments are located adjacent to the campus. Many students use the optional linen service from a local firm which provides fresh linen (sheets, pillowcases, towels, and wash cloths) each week. A blanket rental service is also available from the same source. Draperies are provided. Further information is available from the Housing Office.

The University residence halls are under the care of resident directors.

All students residing in University-owned residence halls and houses are *financially responsible for damage* to rooms and equipment. Residence hall directors report such damage to the Business Office and the student or the parent is billed for the cost of repair or replacement.

The University reserves the right to make changes in residence hall assignments if necessary for the most effective accommodation of the student body.

Bunger
DINING FACILITIES. The University operates dining facilities in the Valparaiso Union and selected residence halls for the convenience of the students. Service will be available during periods of scheduled classes. When service is not provided in a residence hall, students residing in such halls may participate at a neighboring dining facility.

Freshmen living on campus in the residence hall system will be required to contract for a meal plan covering Monday breakfast through Friday dinner (fifteen meals per week) at a cost of \$495.00 per semester. An optional plan of twenty meals is available at a cost of \$600.00 per semester covering the period of Monday breakfast through Sunday noon.

Other students may contract for a board plan at the same rates, or they may pay cash for each meal, or purchase meal coupon books which can be used at the Union or at the residence hall providing a-la-carte service.

Information on type of service to be provided in residence halls will be made available each year prior to registration and room reservation time.

PT

TUITION AND FEES

ESTIMATE OF EXPENSES.

College of Arts and Sciences

	Average Cost Per Semester
Tuition	\$1,950.00
General Fee	86.00
Rent of Room and Board	1,045.00
Books and Supplies	125.00
	<u>\$3,206.00</u>

College of Business Administration

	Average Cost Per Semester
Tuition	\$2,025.00
General Fee	86.00
Rent of Room and Board	1,045.00
Books and Supplies	125.00
	<u>\$3,281.00</u>

College of Engineering

	Average Cost Per Semester
Tuition	\$2,100.00
General Fee	86.00
Rent of Room and Board	1,045.00
Books and Supplies	125.00
	<u>\$3,356.00</u>

College of Nursing

	Average Cost Per Semester
Tuition	\$2,025.00
General Fee	86.00
Rent of Room and Board	1,045.00
Books, Supplies, and Insurance	175.00
	<u>\$3,331.00*</u>

School of Law

	Average Cost Per Semester
Tuition	\$2,425.00
General Fee	86.00
Rent of Room and Board	Not applicable
Books and Supplies	200.00
	<u>\$2,711.00</u>

The expenses for each academic year (two semesters) are approximately twice the above semester figures.

Clothing, travel, incidental expenses, fees for applied music lessons, and special fees** are not included in these estimates.

*The student is responsible for providing transportation whenever it is necessary for off-campus clinical experience. Access to a car is necessary during the Junior and senior years.
 **See Special Fees, page 223.

Kruger
Amounts due the University are payable in full at the time of registration for each semester.

Parents are billed approximately three weeks prior to registration with an invoice containing the estimated charges for the coming semester. Either payment or evidence of participating in an approved education expense payment plan as outlined below must be received in the Business Office a week prior to registration. The minor adjustments in the billing required by additional course fees, for example, are detailed in a statement forwarded to the parents approximately one month after registration. Credits for scholarships, loans, grants, etc., may be deducted in arriving at the balance due prior to registration.

Amounts to be earned through campus employment may not be deducted, since these are paid during the course of the semester directly to the student through our regular payroll procedure.

Each student registering at Valparaiso University assumes responsibility to pay all college-related expenses not covered by financial aid.

Students who officially withdraw from the University must make arrangements to meet all outstanding financial obligations to the University. Examples of such obligations are tuition and fees, room and board, library fines, infirmary fees, etc. The student's transcript will not be released until satisfactory payment of all obligations has been made.

Each graduating student must pay any remaining financial obligations to the University prior to graduation.

No degree will be conferred upon and no transcript will be given for a student whose account with the University or the Student Senate has not been settled in full.

Loans such as National Direct Student Loans (NDSL), Federally Insured Student Loans (FISL), or Valparaiso University Student Loans become due as stated in the promissory note signed by the student. Transcripts will not be released to students who fall in arrears on payment of these loans.

EDUCATIONAL EXPENSE PAYMENT PLANS. Parents of Valparaiso University students may select one of the following commercial plans for the payment of educational expenses.

(a) The Tuition Plan, Concord, New Hampshire 03301.

Any amount for University expenses may be borrowed, and later adjusted, for a 1-4 year plan. Payments starting in October may be spread over a 12 to 96 month period. The annual interest rate approximates 18%. A pre-payment plan (non-borrowing) provides that payments for each school year may begin in any month from January to July. The Tuition Plan forwards payments to the University in accordance with its agreement. Life insurance on the wage earner parent is available to cover the balance of the contract in the event of the death of the wage earner.

(b) Education Funds, Inc.—Fund Management, 2700 Sanders Road, Prospect Heights, Illinois 60070.

Any amount for University expenses may be budgeted for one year at a time, or on a multi-year contract. The borrower makes ten payments the first year,

starting in June, twelve payments in subsequent years. There is no interest charge, only a one-time charge of \$30.00. The company forwards payments to the University. Life insurance is available in most states to cover the selected plan.

(c) The National College Payment Plan, 53 Beacon Street, Boston, Massachusetts 02108.

This plan provides the student with a direct source of Government-subsidized Guaranteed Student Loans. The parent's monthly payments to the Plan provide the funds to meet term charges in excess of those paid by the student loans and accumulate funds which may be used to repay the student loans in full when they are due. The student's education is protected with life and disability insurance on the parent.

SPECIAL FEES.

***Application—\$15.00.** This fee is payable at the time of application for admission to the University. It is not refundable.

Readmission—\$5.00. This fee is payable at the time of application for re-admission to the University. It is not refundable.

Tuition Deposit—\$50.00. This fee is required of all new students, both resident and commuter. A refund of \$25.00 will be given if a written notice of cancellation is received before June 1 for the Fall Semester or before December 1 for the Spring Semester.

Liability Insurance—variable. This fee, required of all students in the College of Nursing at the beginning of the sophomore year, provides three years of professional and personal liability coverage for the clinical practice component of the nursing courses.

Housing Deposit—\$100.00 (\$50.00 for returning students). This fee is required of all students requesting University housing. In case of cancellation, see "Refunds" on page 219.

Vehicle Registration—\$10.00. This fee applies to the first registration and covers both semesters of the school year. For either semester of the school year, the first registration fee is \$5.00. For each additional registration, the fee is \$2.00.

Matriculation—\$5.00. This fee is payable once only, when the student registers in the University.

Overseas Study—\$175.00. This fee is payable by each participant.

Graduation—\$15.00, payable at the time formal application for a degree is filed.

Developmental Reading Program—\$59.00.

Transcript—No charge is made for the first transcript issued. For each additional transcript, the fee is \$2.00. No official transcript of a student's record is released until the student has met in full his/her obligations to the University.

*For School of Law—\$25.00.

Late Registration—\$40.00. This fee becomes effective after the close of the last official day of formal registration. In no case will late registrants be exempted from this fee, unless for valid reasons they have been given written authorization for exemption by the Vice President for Student Affairs.

Cliff Bryson
STUDENT SENATE FEE. This fee is collected by the University each semester and is allocated to the Student Senate. This entitles the student to participate in the activities conducted by the Student Senate and its committees. This includes lectures, entertainment, publications, University Radio Station, and other activities sponsored by the Student Senate.

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PAYEE. Drafts, checks, and money orders, should be made payable to the Valparaiso University Association, Inc.

† REFUNDS

In case of *formal voluntary withdrawal* only*, the tuition fee, room rent, and board in University operated dormitories are refundable as indicated below. Refunds on tuition and room rent are made until seven weeks after the first official day of classes of a semester. If a student is dismissed, there is no refund due. General, special, and laboratory fees are never refunded.

Week of Semester	Tuition				Room	Board
	(A&S)	(B.A., Nurs.)	(Engr.)	(Law)		
1	\$1,750.00	\$1,817.00	\$1,884.00	\$2,176.00	\$400.00	Refund policy
2	1,563.00	1,623.00	1,683.00	1,943.00	355.00	on the
3	1,381.00	1,434.00	1,487.00	1,718.00	315.00	unused Meal
4	1,206.00	1,253.00	1,300.00	1,500.00	275.00	Plan Contract
5	1,025.00	1,064.00	1,104.00	1,275.00	235.00	is available
6	837.00	870.00	902.00	1,041.00	195.00	at the Food
7	662.00	688.00	713.00	824.00	150.00	Service Office.

Part-time students are given refunds in proportion to the above table.

Refunds are made to students unless the University is instructed in writing to remit to parents or guardians. Refunds must be claimed in writing within six months of the close of the semester in which the assessments were made.

If a student and/or a parent feel(s) that individual circumstances warrant exceptions to this policy, a written request should be submitted to the Vice President for Business Affairs.

†Based on the day the application to withdraw is submitted to the Office of the Registrar.
*See page 213.

**FINANCIAL AID
SCHOLARSHIPS
LOAN FUNDS
GENERAL INFORMATION**

Dave
Knows

FINANCIAL AID

This program at Valparaiso is intended to provide financial assistance to students who, without such aid, would be unable to attend the University. In selecting the students to receive this assistance, the University places primary emphasis on the student's academic achievement, character, and future promise. Financial aid consists of scholarships, grants, loans, and campus employment which may be offered to a student singly or in various combinations. The family of a student is expected to make a maximum effort to assist him/her with college expenses. Assistance awarded by Valparaiso should be viewed as supplementary to the effort of the family, and will not exceed the need of the candidate.

In order to assist in achieving these objectives, the University participates actively in the College Scholarship Service of the College Entrance Examination Board. It supports the principles and practices of this organization and requires that the parents of all aid candidates submit the Financial Aid Form of the College Scholarship Service.

Types of Awards.

Scholarships. Normally a student qualifies academically for a scholarship when ranked in the upper ten per cent of the graduating class and has reported scores on the Scholastic Aptitude Test of the College Entrance Examination Board which clearly indicate that he/she should be able to maintain a 3.0 average at Valparaiso. Scholarships vary in size up to full tuition.

Academic Grants. Students who need financial assistance and are expected to do better than average academic work may receive an academic grant.

Grants-In-Aid. Grants-in-aid are available to students in critical need of financial assistance and who are expected to maintain at least a 2.0 average at Valparaiso.

Educational Opportunity Grants. Provided for in the Higher Education Act of 1965, Educational Opportunity Grants are awarded to students whose families can assist them to only a limited extent. The size of the grants varies according to the computed amount of parental contribution from income and assets.

Campus Employment. Students are employed on campus as departmental assistants, library workers, dormitory receptionists, typists, stenographers, maintenance workers, and cafeteria workers. Salaries range from \$400 to \$800 per academic year. The College Work-Study Program, created by the Economic Opportunity Act of 1964, funds some of the campus employment.

Assignments will not be made to the detriment of the student's academic success.

Loans. Valparaiso participates in the well known National Direct Student Loan Program, through which a student may borrow at an interest rate of 4% with repayment of principal and interest deferred until the termination of his/her full-time college attendance. A student may borrow up to \$1,000 per year depending on need.

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A smaller number of student loans are privately administered by the University.

Renewal. All financial assistance requires a yearly application, including the filing of a Financial Aid Form. Renewal depends on continued need and the availability of funds. In addition, the minimum academic requirement for an academic scholarship is 2.7 and for grants-in-aid, 2.0. Academic deficiency precludes a student from receiving financial assistance.

Method of Application. The following procedure should be followed by any student entering the University for the first time who wishes to apply for financial assistance:

1. File an Application for Admission with the Director of Admissions. No student may be considered for scholarship until his/her formal application has been approved.
2. Submit a Financial Aid Form to the College Scholarship Service with Valparaiso University being listed as an institution to receive a copy and its analysis. This form may be secured from your high school guidance office or by writing the Office of Financial Aid, Valparaiso University.

The filing of the FAF should be completed at the time of application for admission or as soon as possible thereafter. The Committee on Financial Aid cannot guarantee aid consideration for those students whose FAF is filed later than March 1.

3. File an application for financial aid to the Financial Aid Office.
4. Take the Scholastic Aptitude Test (morning section) of the College Board Examination. These scores are necessary for admission approval as well as for aid consideration.

SCHOLARSHIPS

Koenig

Listed below are the specific scholarships awarded annually by Valparaiso University. The largest portion of the awards available are University Scholarships. Recipients of these specific scholarships are selected from the total group applicants who have completed the regular application procedure. By completing this application, a candidate may assume that he/she will automatically be considered for whichever of these restricted awards he/she is eligible. If additional information is required of him/her, he/she will be contacted after he/she has filed the standard application for financial assistance.

University Scholarships. In addition to the specific endowed, donated, and other scholarships listed below, the Board of Directors annually authorizes hundreds of scholarships ranging in value from \$100.00 to \$1,500.00 a year.

Honorary Citation. \$100.00 one-time awards—students with no need.

The Charles P. Addis Scholarship. It is to be awarded to a student athlete from the greater Rockford area in the amount of \$2,000.00 annually.

Aetna Life and Casualty Scholarship. Annual grant to help qualified students, with preference to disadvantaged and minority students.

Aid Association for Lutherans. Competitive Nursing, All College, Lutheran Campus, and Lutheran American Minority Scholarships.

Mr. and Mrs. Oliver W. (Emma) Allen. Preministerial student.

Alpha Phi Delta Sorority. Upperclass sorority members.

Anna B. Althans. Social work major—Annual award.

Amoco Foundation, Inc. Scholarship. Awarded to one or two deserving students; they should be either in their junior or senior year and majoring in Mechanical Engineering.

The John W. Anderson Scholarship. Annual awards are made to students in the College of Nursing. Preference will be given to students from the Northwest Indiana area.

Reverend Theodore and Vera Andres Scholarship. Annual award.

The Robert Augustine Memorial Scholarship. Annual award with preference to students from Wisconsin. The amount and number will vary depending upon the earnings of the established fund.

The Eric Lee Bandick Scholarship. This fund was established by Lorenz Bandick in memory of his son, Eric Lee Bandick, to be used as an engineering scholarship/loan fund for needy and worthy students.

The Bark Memorial Scholarship. Established by Elda M. and Alfred E. Bark in memory of their daughter. Preference to pre-ministerial students. Amount and number to vary depending upon the earnings of the established fund.

Herbert C. Bartelt Scholarship. Valparaiso University senior student who plans to enter the Lutheran Ministry by way of Concordia Seminary in St. Louis, Missouri or Fort Wayne, Indiana.

Dr. and Mrs. Henry Frederick Beckman. Resident of Indianapolis, Indiana—Annual award.

The Benz Basketball Scholarship. Awarded to a member of the University's men's intercollegiate basketball team.

Charlotte Berns Scholarship. College of Nursing—Annual award.

Wilfred and Olga Bernthal Scholarship. Annual award. Established by their son and daughter-in-law, Mr. and Mrs. Harold G. Bernthal.

Inez C. and W. H. Bischel Scholarship. Varying amounts for needy students.

The Charles H. and Elizabeth Blume Endowed Scholarship. Preference given to students from Northwest Indiana.

The William F. and Martha Boeger Memorial Scholarship. Varying amounts for needy students.

The Rudolf F. Boening Memorial Scholarship. Established by the Valparaiso Board of Realtors in memory of past president Rudolf F. Boening. To be awarded annually to a business major from Porter County with preference given to a senior who has maintained a 3.0 average regardless of need.

(Mrs.) Amalie Bokerman. Resident of Pennsylvania—Annual award.

John V. Borgerding. Resident of greater Pittsburgh or Pennsylvania—Annual award.

The Mr. and Mrs. Stanley E. Bovim Scholarship. Established in their honor on the occasion of their forty-fourth wedding anniversary. Preference will be given to students from Wisconsin.

Otis R. and Elizabeth Bowen Scholarship. Annual award. The amount and number will vary depending on the earnings of the established fund.

Professor John Bowman Scholarship. Preference for students enrolled in the School of Law. Amount and number to vary depending upon the earnings of the established fund.

Julius C. Bruechner Scholarship. Any student in need of assistance.

Luella R. and Herbert P. Buetow Scholarship. Worthy student(s) who plans to enter upon a career in the broad service of the Church. The award will be made on the basis of academic ability, character, future promise, and need for financial assistance.

The Olive Cattau Memorial Scholarship. Annual award with preference to students from Michigan and Western New York. Special consideration to students preparing for full-time service to the church. Amount and number will vary depending on the earnings of the established fund. (This scholarship will not be initiated until the fund reaches \$10,000.00.)

John E. Christen Memorial Scholarship. Annual scholarship for the School of Law.

City Glass Specialty, Incorporated. Resident of Fort Wayne, Indiana—\$1,200.00 annually.

The Emma E. Claus Scholarship. Amount and number to vary depending upon the earnings of the established fund. Students participating in the Christ College program are eligible.

The Robert F. and Caroline McMillan Collings Scholarship. Preference given to New England students majoring in either art or speech and drama. The amount and numbers will vary depending upon the earnings of the established fund.

Robert F. Connell Memorial Scholarship. Annual award—School of Law.

The Kenneth Bayard Copeland and Todd Cushman Copeland Family Memorial Scholarship. The income from this endowed scholarship to be awarded annually with preference given to engineering and pre-medical students.

Covenant Lutheran Church Scholarship. Preference given to a student from the northeastern section of the United States who is training for a church vocation. If there is no such candidate, then to any eligible student from the northeast. If there were still no candidate, then the award should be given to a student from anywhere in the country preparing for a church vocation.

The Roy and Gertrude Dallman Scholarship. Awarded annually on the basis of merit or need to a Wisconsin student, preferably from the Shawano area.

The Arthur Vining Davis Scholarship. Amount and number to vary depending upon the earnings of the established fund.

The Chaplain Edward G. Deffner Memorial Scholarship. Awarded annually on the basis of merit or need. Preference given to students from Wisconsin.

The Edwin F. Deicke Scholarship. Amount and number to vary depending upon the earnings of the established fund. Preference given to students from Northern Illinois.

Alpha Gamma Chapter of Delta Kappa Gamma. Senior woman resident of Porter, Jasper, Newton, or Pulaski Counties in Indiana—\$125.00 annually.

Delta Upsilon Chapter of Eta Sigma Phi Scholarship. Classics honorary. Awarded annually to promising students who have had at least one year of Greek or Latin at Valparaiso University.

The John L. DeVoss Memorial Scholarship. Annual award. Preferential recipients will be those third-year law students who are from Adams County or who intend to practice in the Adams County area.

Sophie Doern Scholarship. Annual award.

The Donald W. Dopp Memorial Scholarship. The income from this endowed scholarship, established with gifts from members of the Dopp family, to be given annually to Michigan residents, preferably from Macomb County.

The Wilbur C. Dopp Memorial Scholarship. For employees of Dopp Distributors, Incorporated, or for an employee's son, daughter, or grandchild.

Wilbur H. and Marguerite M. Dosland Scholarship. Awarded annually, on the basis of merit or need, to students from Iowa with preference given to Eastern Iowa.

The Reverend Ernest H. Eggers Memorial Endowed Scholarship. Annual award with preference to a student from Texas.

Reverend and Mrs. P. J. (Myrtle E.) Eickstaedt. Annual award.

Carl and Bertha Eigert Scholarship. Outstanding students. Awards made on the basis of academic ability, character, and need.

The E. Stanley and Calista Enlund Scholarship. Annual award with preference given to Chicagoland area students. The amount and number will vary depending upon the earnings of the established fund.

Robert Elmore Findling Memorial. Engineering student—\$100.00 annually.

First Federal Savings and Loan Association of Valparaiso. Porter County, Indiana residents—Annual awards.

First National Bank, Valparaiso. Residents of Porter County, Indiana—Annual award.

The Henry W. Flemming Scholarship. For qualified students from the Rochester, New York, area, if possible—Annual award.

The Herbert J. Foelber Scholarship. Annual award. The amount and number will vary depending upon the earnings of the established fund.

The Edith Schuchardt Forsberg Family Memorial Scholarship. Established by Harvey B. Schuchardt. Preference given to students from the Wisconsin area.

The Arthur Franke Memorial Scholarship. Annual award. The amount and number will vary depending upon the earnings of the established fund.

Frank Freimann Engineering Scholarship. Full tuition, fees, and books for engineering students.

Leslie F. and Katherine D. Frerking Endowed Scholarship. Annual award. Preference given to students from the Southeastern United States. The amount and number will vary depending on the earnings of the established fund.

Dr. and Mrs. E. C. Galsterer. Resident of Saginaw, Michigan or Saginaw Valley.

Gast Manufacturing Corporation. Resident of Southwestern Michigan, if possible—majoring in engineering—\$1,000.00 annually.

The William C. Gast Memorial Scholarship. Preference given to students from Southwestern Michigan. Amount and number will vary depending on the earnings of the established fund.

The Henry C. and Ura E. Guhl. Annual award.

Guild Past National Officer's Scholarship. Initiated by the Past National Presidents and Executive Directors in the name of all the women who have served as presidents, vice-presidents, secretaries, treasurers, and executive directors of the Guild. Annual awards. The amount and number will vary depending on the earnings of the established fund. Preference given to sons or daughters of University Guild members. (This scholarship will not be initiated until the fund reaches \$10,000.00.)

Ruth H. Gunther Scholarship and Lecture Fund. Awarded annually to promising students studying Greek or Latin at Valparaiso University.

The Elsa (Mrs. Lloyd) Halverson Endowed Scholarship. Annual award. The amount and number will vary depending upon the earnings of the established fund.

The Rev. Dr. Oliver R. and Bertha Harms Scholarship. Annual award. The amount and number will vary depending on the earnings of the established fund.

The Reverend Harlan Hartner Scholarship. Preference given to students from the Greater Kansas City area. The amount and number will vary depending on the earnings of the established fund.

Harvey Scholarship. Pre-osteopathic major, if possible.

The Dr. Karl H. Henrichs Scholarships. For Lutheran or other students. The scholarship sponsors are Mr. and Mrs. Henry J. Moellering. The amount and numbers will vary depending on the earnings of the established funds.

Herman C. Hesse Scholarship. Three annual awards. The awardees to be noted as Hesse Scholars.

The Mrs. Charles H. Hickman Scholarship. In memory of her husband. The amount and numbers will vary upon the earnings of the established fund.

Mary Hilgemeier. Preferably a member of Emmaus congregation, Indianapolis, Indiana.

The Walter S. Hiltbold Endowed Scholarship. Annual award. The amount and number will vary depending upon the earnings of the established fund.

Hoeppner, Wagner, and Evans Scholarship. Financial awards administered by the School of Law's Financial Aid Committee and made on an annual basis to one student from each of the second and third year classes.

Richard J. Hoerger Scholarship. Interest—government. The amount and number will vary depending on the earnings of the established fund.

Dr. O.C.J. Hoffmann—Dr. A. G. Huegli Endowed Scholarship. Annual award with first preference given to St. Louis Lutheran High School graduates, and second preference to St. Louis area students. The amount and number will vary depending upon the earnings of the established fund.

The Clara A. Holeman Scholarships. Varying amounts for needy students in the fields of chemistry and medicine.

Oscar Homann. Preference to resident of Illinois—Annual award.

Dr. and Mrs. A. G. Huegli Endowed Scholarship for Leadership. Established in their honor by their children.

A.G. Huegli Southeastern Michigan Endowed Scholarships. Earnings from this endowment to be used for annual scholarship grants awarded on high school achievement, with preference given to students from Southeastern Michigan. Recipients will be designated "Huegli Scholars."

Joyce Huegli Endowed Memorial Scholarship. Preference for students in the College of Nursing. The amount and numbers will vary upon the earnings of the established fund.

Indiana Home Economics Association. \$350.00 scholarship to upperclass student, rotated alphabetically among privately supported institutions that offer degree in home economics.

The Owen C. Jackson Scholarship. To be awarded to an athlete, preference to football, from River Forest, Illinois, amount of \$2,000.00 annually.

Judge and Mrs. F. A. Jaeckel Memorial. Annual award.

Richard F. and Martha W. Jeske. Annual award.

Edward Jiede, Jr. Annual award.

Mr. and Mrs. Emil Jochum. Scholarships in varying amounts up to full tuition annually for students from Ohio, preferably Cleveland and vicinity.

Kappa Kappa Kappa. Senior girl from Valparaiso High School—Annual award.

The James G. Kemper Foundation Scholarship. To be awarded to freshmen or sophomores whose curriculum is compatible with the needs of the insurance industry. Academic excellence, financial need, and a willingness to explore a career in insurance are criteria.

Elsie A. Kind Pre-Ministerial Scholarship. Established by her brother Harry. \$500.00 annual award.

Mr. and Mrs. Victor Kirsch. \$1,000.00 annually.

The Mr. and Mrs. Edwin H. Koeneman Endowed Scholarship. Preference will be given to students from Concordia Lutheran High School, Fort Wayne, Indiana. The amount and number will vary depending upon the earnings of the established fund.

Erra E. Koenemann (Mrs. Henry F.) Scholarship Fund. Preference given to students in the College of Nursing.

The Herbert H. and Edith A. Koenig Scholarship. Annual award with preference to students from St. Paul's Lutheran Church, Fort Wayne, Indiana.

George E. Kottyan Memorial Scholarship. \$100.00 annually. Preference to a philosophy student.

The Jayne Hoffmann Kraegel Memorial Scholarship. The amount and number of awards will vary depending upon the earnings of the established fund. Preference will be given to students with an interest in journalism.

The Mr. and Mrs. Gilbert W. Krause Athletic Scholarship. Preference will be given to students with outstanding athletic and academic records. The scholarship was established by members of their family on the occasion of their fortieth wedding anniversary.

The O. P. Kretzmann Scholarship Fund. Established by the Class of 1970 to honor Dr. O. P. Kretzmann.

William H. Kroeger. A resident of Akron, Ohio—Annual award.

The Walter H. Kroehnke Scholarship. Annual award. Preference given to students in the College of Business Administration. Established with gifts from the Reverend and Mrs. Justus P. Kretzmann and other members of their family.

Frederick William Kroencke Memorial. Upperclass student. Annual award.

Krueckenberg Family Scholarship. Awarded annually, on the basis of merit or need, to a student from Wisconsin, preferably from the Clintonville area.

Krumsieg Trust. This trust is established in memory of Charles J. Krumsieg, Ida F. Krumsieg, and Elma Krumsieg Kraft with the income to be used for scholarships or loans for students in need of financial help.

William F. and Florence R. Laesch. Preference given to business student from Michigan, Indiana, or Ohio. Annual award.

Earl F. Landgrebe. \$275.00 annually.

Mr. and Mrs. Erwin A. Lange. Major in College of Business Administration or Department of Mathematics—Annual award.

H. F. Lange Memorial Scholarship. Annual award.

The Harry and Emma Lange Endowed Memorial Scholarship. Established by the children and relatives of Harry and Emma Lange, Seymour, Indiana. Annual award.

The Langer Basketball Scholarship. Awarded annually to a member of the University's men's intercollegiate basketball team.

The Charles E. Laue Scholarship. Annual award with preference to a child or children of an employee(s) of the Hamilton Pax Company. The amount and number will vary depending upon the earnings of the established fund.

A. J. W. and Elfrieda M. LeBien. College of Nursing students. The amount and the number of recipients will vary depending on the income realized from the established fund.

The Phoebe Leeds Memorial Scholarship. Annual award with preference given to applicants who are orphaned, adopted, and/or foster children.

The Ernest and Clara M. Lichtfuss Endowed Scholarship. Annual award depending on the earnings of the established fund.

John A. Liechti Scholarship Fund. Any student in need of assistance.

Nancy Lieneck Memorial Scholarship. With preference given to a fourth year female student in the area of social work or special education.

Carl F. Lindberg Memorial. Student in elementary education and student in secondary education—two awards in varying amounts annually.

Mr. and Mrs. Erick Lippert. Annual awards.

The Mr. and Mrs. Orval M. Lohse Scholarship. Preference given to students from Kansas. Amount and number of recipients will vary depending on the income realized from the established fund.

Mr. and Mrs. J. A. Long. Resident of Central Illinois—\$200.00 annually.

Lynette and Norman Luekens Scholarship. The income from this endowed scholarship to be awarded annually with preference given students from the Greater Cleveland area.

Lutheran Brotherhood. Junior and Senior College Scholarships for Lutheran students and Lutheran Brotherhood Members' Scholarships.

Lutheran High School Principals' Scholarship. Awarded to Lutheran high school seniors who are selected by their principals.

Lutheran President's Scholarship. \$1,500.00 scholarships will be awarded annually in the names of the respective church body presidents of each of the major Lutheran church bodies in America.

The Walter A. MacNary Memorial Scholarship. The amount and number of awards will vary depending upon the earnings of the established fund.

Dr. and Mrs. E. W. Marquardt. Annual award.

The G. H. Maskus Endowed Scholarship. Annual award. The amount and number will vary depending upon the earnings of the established fund.

May Stone and Sand, Inc. Resident of Fort Wayne, Indiana—Annual awards.

Charles A. Maynard Memorial. Student majoring in the College of Engineering—\$500.00 annually.

James H. McGill Memorial Scholarship. Children of employees of McGill Manufacturing Company—Annual award.

The Ernest A. Menzel Endowed Scholarship. Annual award. The amount and number will vary depending upon the earnings of the established fund.

Mr. and Mrs. Dirk Meyer. Resident of Pekin, Illinois—Annual award.

The Lucille M. Meyer Scholarship. Awarded annually on the basis of merit or need to a student majoring in music.

Gerhard F. Meyne Scholarship. The amount and numbers will vary depending on the earnings of the established funds.

Helen Miller Scholarship Fund. This scholarship is to benefit a student from St. Paul Lutheran Church, Napoleon, Ohio.

Minnesota Merit Scholarship. Established by Minnesota alumni and friends. Awarded to students from Minnesota with outstanding ability and potential based on scholarship, leadership, character and extra curricular activities. Financial need is not a criterion. Awards are for four years in the amount of \$500.00 per year.

Dean H. Mitchell Endowed Scholarship. Annual award with preference to a student from Indiana. The amount and number will vary depending on the earnings of the established fund.

Henry F. Moellering. Resident of Fort Wayne or Allen County, Indiana—Annual award.

The Mr. and Mrs. Henry J. Moellering Music Scholarship. The recipients are to be selected on the basis of talent and need. The amount and number will vary depending upon the earnings of the established fund.

The Dr. and Mrs. Robert C. Moellering, Sr. Scholarship. Preference given to music majors or engineering students. The amount and numbers will vary depending upon the earnings of the established fund.

The Clara Mueller Scholarship. Annual award. The amount and number will vary depending upon the earnings of the established fund.

The H.F.C. Mueller Scholarship Fund. Awards are to be given to eligible students who have completed the freshman year, for a maximum of four years, including one seminary year.

The George L. and Mary S. Myers Endowed Scholarship. Annual award.

3M Company Scholarship(s). Varying amounts for students who are U.S. citizens, funded by Minnesota Mining and Manufacturing Company of St. Paul, Minnesota.

Martin J. Nehring Endowed Scholarship. Annual award with preference to a student from Colorado.

Northern Indiana Bank and Trust Company. Residents of Porter County—Annual awards.

The Nicholas H. and Marguerite Lilly Noyes Endowed Scholarship Fund. Authorized by the Board of Directors of Valparaiso University to honor Mr. and Mrs. Noyes, whose generosity makes this scholarship possible. The Noyes Scholars are to be selected on the basis of need, character, personality, and leadership. The number of Noyes Scholars and the amount of scholarship will be determined each year by the University Scholarship Committee.

The Carl and Arnold C. Nuechterlein Scholarship. Annual award. The amount and number will vary depending upon the earnings of the established

fund. Preference to College of Business Administration students who also agree to take at least one course, if available, on the subject of risk management or insurance.

Nutmeg State Chapter Valparaiso University Guild. Annual award.

Joel S. Oberman Basketball Scholarship. Awarded annually to a member of the basketball team.

The Oberst Family Scholarship. Annual award. The amount and number will vary depending upon the earnings of the established fund.

The Reverend Armin and Evelyn Oldsen Endowed Scholarship. Annual award. Amount and number will vary depending upon the earnings of the established fund.

The Walter E. Olson Memorial Scholarship. The amount and numbers will vary depending upon the earnings of the established fund. Preference given to students from the area of Northern Illinois District.

Dr. Richard Oster. Resident of New Orleans, Louisiana—Annual award.

Mollie V. Page. Member of Bethany Lutheran congregation, Waynesboro, Virginia—Annual award.

Peace Lutheran LWML Scholarship. Annual award with preference to a student from the Goldsboro, North Carolina area.

The Professor Charles G. Peller and His Son, John Van Alstyne Peller, Memorial. Upperclass students in College of Engineering, preferably civil. The amount and number of recipients will vary depending upon the income realized from the established fund.

Peters Family Michigan Scholarship. Annual awards with preference given to students from Michigan. The amount and number will vary depending on the earnings of the established fund.

The Hattie Lowe Pierce Scholarship. Awarded annually to senior women with preference given those with a special interest in Political Science. The amount and number will vary depending upon the earnings of the established fund.

Pilgrim Evangelical Lutheran Church of Detroit Memorial Scholarship. Annual award. Preference given to students from the Detroit area.

The Arthur E. Pohlman Scholarship. Annual award. The amount and number will vary upon the earnings of the established fund.

Pohlman Family Scholarship. Annual awards with preference given to students from Western New York. Amount and numbers based on annual family gifts and earnings of the established endowment fund.

Porter County Doctors' Scholarship. Awards in varying amounts, giving preference to residents of Porter County, and pre-medical, nursing, and medical technology students.

Porter Memorial Hospital Guild. Residents of Porter County, Indiana who desire to enter the College of Nursing—\$2,000.00 annually.

The Mrs. Hazel Predoehl Memorial Scholarship. Annual award. The amount and number will vary depending upon the earnings of the established fund. Preference given to students from California and Oregon.

Price, Waterhouse and Company Scholarship. Annual award.

Vernon F. and Katherine H. Radde Scholarship. Annual award.

The Emma and William Rakowsky Memorial Endowed Scholarship. Any student in need of assistance.

The Elizabeth Raney Scholarship. The amount and numbers will vary depending upon the earnings of the established fund.

The Mr. and Mrs. Fred A. Reddel, Sr. Endowed Scholarship. Established in their honor by their children. Preference will be given to Music and Art students. The amount and number will vary depending upon the earnings of the established fund.

The Reverend and Mrs. Arthur L. Reinke and the Reverend and Mrs. Augustus Reinke Memorial Scholarship. Established by Dr. Edgar C. Reinke in honor of his parents and grandparents. Two awards on the basis of academic excellence, not need—one to a student who has completed one year of college Latin and one to a student who has completed one year of college Greek. Renewable if the recipient elects to major in Latin, Greek, or Classics.

Mr. and Mrs. Carl Rittberger. Resident of Columbus, Lancaster, or Zanesville, Ohio area or from State of Ohio—annual award.

Frederick C. Roehl. Resident of Wisconsin, preferably the Oconomowoc area—Annual award.

The Waldemar M. Roth Memorial Scholarship. Annual award with preference to student(s) preparing for full-time Lutheran Church work.

Adele Ruettgers Scholarship Fund. Students in the College of Nursing.

Thomas Russell Charitable Foundation Scholarship. Annual award with preference to Illinois residents.

Sargent and Lundy Scholarship. Annual award.

The Walter W. Schantz Endowed Scholarship. Annual awards. The amount and number will vary depending upon the earnings of the established fund.

Mr. and Mrs. Henry J. Schneider Scholarship. The amount and numbers will vary depending on the earnings of the established fund.

Dr. Frederick C. Schuldt Memorial Scholarship. For qualified students from the Rochester, New York area, if possible. Annual awards—two half scholarships in Nursing.

Albert F. and Miriam B. Scribner Endowed Scholarship. Annual award. The amount and number will vary depending upon the earnings of the established fund. Preference should be given students enrolled in the College of Nursing.

Carl W. and Caroline D. Seyboldt. Member of Bethlehem Lutheran Church, Ridgewood, New Jersey—\$600.00 annually.

Louis and Helen Zahn Shales Scholarship. Awarded annually to a member of the First Lutheran Church, Berkeley and Marlboro Streets, Boston, Massachusetts.

Mr. and Mrs. Hugh O. Sherbert Scholarship. The income from this endowed scholarship, established with a gift of \$10,000, is to be awarded to Lutheran students from Minnesota, preferably to graduates from Lutheran high schools.

John F. Sievers Memorial. Major in business or mathematics—\$200.00 annually.

The Sigma Phi Epsilon Undergraduate Scholarship. Amount and number to vary depending on the earnings of the established fund.

The Sigma Tau Gamma Undergraduate Scholarship. Amount and number to vary depending on the earnings of the established fund.

Stanley B. Sink Scholarship. Valparaiso Community student.

Byron Smith Memorial. Resident of Porter County—\$1,000.00 annually.

The J. Howard Smith Endowed Scholarship. Given by Harvey W. Smith in honor of his father, J. Howard Smith (Valparaiso University LL.B. 1907; LL.M. (Hon.), 1949; LL.D. (Hon.) 1950). Annual award. The amount and number will vary depending upon the earnings of the established fund.

Margaret Krause Smith. Student from Tennessee, preferably Chattanooga area—\$1,000.00 annually.

The Carl O. Sohre Memorial Scholarship. Preference given to students from Minnesota. The amount and number will vary depending upon the earnings of the established fund.

Southern California Endowed Scholarship. Annual awards with preference given to students from Southern California. The amount and number will vary depending on the earnings of the established fund.

Bertha A. Staede Memorial. Music major—resident of Minnesota—Annual award.

Edward I. P. Staede and Amanda Hall Staede. Annual awards.

J. L. Stendel Family Memorial Scholarships. Available to Michigan students or other students if there are not enough from Michigan requiring assistance. Varying in number depending on the earnings of the fund established.

Frederick A. Stendell and Harry E. Stendell. Annual award.

The Paul Stoner Endowed Scholarship. Established by his sister, Miss Ruth Stoner. Annual award—with preference given to students from Porter County, Indiana.

Mr. and Mrs. Herbert F. Stride Endowed Scholarship. Preference given to pre-law students from Illinois. The amount and number will vary depending upon the earnings of the established fund.

Margaretta Sackville Tangerman Scholarship Fund. The income from this scholarship program will be awarded annually to a junior or senior social work major.

Mr. and Mrs. Paul E. Tegge Memorial Scholarship. The amount and numbers will vary depending on the earnings of the established fund. Preference given to students from the Milwaukee, Wisconsin area.

Lawrence E. Teich Scholarship. Annual award with preference given to Chemistry or Engineering students. The amount and number will vary depending upon the earnings of the established fund.

The Louis Thoeming Endowed Scholarship. Annual award. The amount and number will vary depending upon the earnings of the established fund.

The John David Thomas Endowed Scholarship. To be awarded annually to a member of the Valparaiso University wrestling team who deserves and needs financial assistance. The amount and number will vary depending upon the earnings of the established fund.

Bertha S. Tietjen Scholarship. Resident of California, preferably from the San Francisco area.

Laura E. Traue Endowed Scholarship. Annual award. The amount and number will vary depending upon the earnings of the established fund.

Turk Family. Resident of Porter County, Indiana. Annual award.

Dr. and Mrs. H. L. Ulbrich. Annual award.

Urschel Laboratories. \$500.00 annually.

The William E. Urschel Endowed Scholarship. Annual award. The amount and number will vary depending on the earnings of the established fund. The awardees will be noted as Urschel Scholars.

Valparaiso University Guild Scholarship. Four \$500.00 scholarships awarded annually by the Valparaiso University Financial Aid Office to students with financial need and with academic ability. The scholarship recipients shall be sons and/or daughters of Guild members.

Valparaiso Woman's Club Scholarship. Awarded annually. Number and amount vary according to the earnings of the established fund.

The Ed. L. Voelz Scholarship. Amount and number to vary depending on the earnings of the established fund. The student would be a resident of Bartholomew County, Indiana, and a graduate of St. Peter's Lutheran School. Guidelines available upon request.

Theodore H. and Paula Vogel Endowed Scholarship. Annual award with preference given to students from the greater St. Louis area. Amount and number will vary depending upon the earnings of the established fund.

The Anna Waldschmidt Memorial Scholarship. Annual award.

F. G. Walker. Resident of Cleveland or Cuyahoga County, Ohio—Annual award.

The David J. Walton Memorial Scholarship. Annual award. Preference given to students studying engineering. The amount and number will vary depending upon the earnings of the established fund.

Philip Wambsganss Memorial. Resident of Allen County, Indiana—\$175.00 annually.

Angus Ward Foreign Service. Expressed intention to serve as career officer in Foreign Service of the United States, based on academic standing and need—\$1,000.00 annually.

Mr. and Mrs. Henry Wehrenberg, Sr. Descendants of Henry W. Wehrenberg, Sr.—One annual award—\$1,000.00 maximum.

Dr. and Mrs. J. Frederic Wenchel Memorial Scholarship. Worthy student—Annual award.

The Clara and Spencer Werner Scholarship. Preference for pre-legal students or for students enrolled in the School of Law. Amount and number will vary depending upon the earnings of the established fund.

Edith M. Will Endowed Scholarship. Annual award. The amount and number will vary depending upon the earnings of the established fund.

Wisconsin Merit Scholarship. Established by Wisconsin alumni and friends. Awarded to students from Wisconsin with outstanding ability and potential based on scholarship, leadership, character, and extra curricular activities. Awards are for four years in the amount of \$1500.00 per year.

The Charles W. Wolf Memorial Scholarship. To be awarded annually to a senior student majoring in Chemistry.

Mathilda E. Wolff Memorial Scholarship. Annual award(s). The amount and number will vary depending upon the earnings of the established fund.

Ormand C. Yuerhs, Jr. Memorial Scholarship. Annual award for Philosophy major or minor.

Zuehlke Scholarship Fund. Assist worthy student(s) in the humanities.

LOAN FUNDS

The National Direct Student Loan Program. Valparaiso University is participating in the National Direct Student Loan Program, and has established a fund consisting of contributions from the government and the University. Details may be obtained from the Director of Financial Aid.

The Nursing Student Loan Fund. The Valparaiso University College of Nursing participates in the Nursing Student Loan Program and has established a fund consisting of contributions from the government and the University. Details may be obtained from the Director of Financial Aid.

The American Bar Association Fund for Legal Education provides a yearly allotment of funds to be used by students of the School of Law of Valparaiso University. Information pertaining to qualifications for this fund may be obtained from the Dean of the School of Law.

The Donna Francesca-Cesario Chesrow Loan Fund was established for the purpose of making small, short-term loans.

The Garman Loan Fund. A loan fund has been established by Benjamin L. Garman to help students who cannot qualify for a scholarship but who must have financial assistance or those with scholarships who need more help. Details may be obtained from the Director of Financial Aid.

The Phi Alpha Delta Law Fraternity Endowment Fund. Loans from this fund are available to worthy student members of the fraternity who are in need of such loans to complete their law school education. The maximum amount of such loans is \$500.00. Terms of the loans, which are prescribed by the national governing board of the fraternity, will be supplied upon request to the Dean of the School of Law.

The Henry George Poncher Foundation was designed to provide a revolving loan fund to be used for making loans to deserving college students who are taking a pre-medical course preparatory to entering medical school and also to students enrolled in medical school studying to become doctors of medicine. Application is to be made on a form available in the office of the Dean of the College of Medicine of the University of Illinois and in the office of the Vice President for Business Affairs, Valparaiso University. Further information may be secured from these two offices.

The Fred Smoke Student Loan Fund, administered by the Valparaiso University Alumni Association, was established in January, 1965, and provides funds for loans to students who are residents of Porter County, Indiana. Details may be obtained from the Director of Financial Aid.

The Myra K. Tate Student Assistance Trust was established to provide loan benefits to certain students at Valparaiso University. This trust is administered by the Northern Indiana Bank and Trust Company as Trustee. The Trustee will consider applications from Engineering, Law, and pre-medical students who are in the last two years of their schooling at the University. Applications are received on recommendation of the Dean of the appropriate college or the pre-medical adviser and are processed through the Business Office of the University prior to being forwarded to the Trustee for consideration. Details may be obtained from the appropriate academic deans or the appropriate adviser.

The Valparaiso University Law School Alumni Student Assistance Trust Loans available to law students through this trust are awarded by the officers of the trust. Information may be obtained from the Dean of the School of Law.

The Valparaiso University College of Nursing Student Assistance Charitable Trust. The Trust is administered by Northern Indiana Bank and Trust Company as Trustee. Application should be made to the Dean of the College of Nursing.

The Nellie Winifred Cheney Overton Memorial Loan Fund. This fund was established by Mr. William J. Overton as a memorial to Mrs. Overton. The income from the fund is available for loans to students from Lake County, Indiana.

The Indiana Federation of Clubs Loan Fund (Lucy D. Putnam Loan Fund and the Porter County Federation of Women's Clubs Loan Fund).

The Mr. and Mrs. August Schoenherr Memorial Loan Fund was established by Mr. and Mrs. Leonard Schoenherr of Ludington, Michigan, as a memorial to his parents.

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The Henry Strong Educational Foundation provides funds for loans to qualified upperclassmen under twenty-five years of age.

The Semester on the United Nations Loan Fund. This was established by the Valparaiso branch of the American Association of University Women for women students eligible to participate in the United Nations Semester at Drew University. Terms are similar to those of the Washington Semester Program Loan.

The Valparaiso University Association Loan Fund. A University Loan Fund has been established to help students who cannot qualify for a scholarship but who must have financial assistance or those with scholarships who need more help. Details may be obtained from the Director of Financial Aid.

In addition to funds provided by special appropriation of the Board of Directors, friends of the University who strongly believe in the principle of lending their resources to students in need have contributed to the University Loan Fund. These contributors are: M. E. Dinsmoore Memorial, Frank B. Estell, Oscar Homann, Glenn Krabec, Aaron H. Kruse, The Lutheran Ladies Seminary, Anna and Bertha Meyer, Robert Miller Laboratory, Albert and Anna Raether Memorial, Mr. and Mrs. Henry J. Schneider, Mr. Werner Schroeder, Carl and Susan Thomsen, Trinity Tool Company.

The Washington Semester Program Loan Fund. Only students fully accepted for the Washington Semester Program at the American University are eligible. Loans up to one hundred dollars are given; the student is expected to repay the loan plus a donation to the principal of the fund of twenty-five per cent within five years after leaving the University.

The Janette G. Wesemann Student Loan Fund was established for the purpose of making loans primarily to qualified pre-law and law students, preferably from the State of Illinois, who are in need of financial assistance to continue their education. Loans from this fund are available to students who are making satisfactory progress toward a degree.

The Betty Rose Wulf Memorial Loan Fund was established by her parents, Mr. and Mrs. Walter H. Wulf, to be used by students preparing for church work, such as deaconess training.

LOAN REPAYMENT TERMS. For: **The Overton, Indiana Federation of Clubs, Schoenherr, Henry Strong, VUA, Wesemann, and Wulf Loans:** No interest accrues while the borrower is enrolled full-time at Valparaiso University; interest begins when he/she leaves. A four year repayment schedule is called for by the terms of the promissory note. Certain adjustments are possible on repayment schedules while a borrower attends graduate school.

REHABILITATION GRANTS. Under the provision of Public Law 565, the Federal Government and the State of Indiana jointly provide funds for scholarship grants-in-aid to students who have a physical or mental impairment which constitutes a vocational handicap. The State Vocational Rehabilitation Division is responsible for the determination of the grants. At Valparaiso University, the Registrar's Office accepts referrals for applications. The grants pay tuition and some fees.

GENERAL INFORMATION

Schmabel

LECTURES.

The John Martin Gross and Clara Amanda Gross Memorial Lectures, established by Mr. and Mrs. Walter H. Gross, are delivered annually by outstanding religious leaders to the entire University community.

The J. W. Miller Memorial Lectures, delivered during Reformation Week by prominent religious leaders, were established in memory of Pastor J. W. Miller, who was an important influence in establishing Valparaiso as a Lutheran university.

The A. J. W. and Elfrieda M. LeBien Endowment Fund for Lectures on Liturgy provides income for lectures on liturgy and for publication of brochures related to the Chapel.

The O. P. Kretzmann Lectureship in Christian Ethics, established in honor of the late President Emeritus, is delivered annually. The topics and speakers each year will be designated by the President of the University, after consultation with his advisers. Earnings from the O. P. Kretzmann Memorial Fund will underwrite the expenses. At the direction of the President of the University, the lectureship may periodically be replaced with a memorial sermon on a topic related to Christian faith and social issues.

The Percy H. Sloan Memorial Lectures in Art, established as a memorial to Percy H. Sloan, who endowed the Sloan Collection of American Paintings, are presented by prominent artists and art critics.

University Lectures on various topics of current interest are presented from time to time at University convocations as an integral part of Valparaiso's educational program.

THE LUMEN CHRISTI MEDAL. This medal is awarded to a lay person for distinguished service to Lutheranism. It is the highest honor Valparaiso University can bestow.

THE MEDAL OF MERIT. This medal is an award to recognize the outstanding service to society by the recipient through his chosen calling and by his exceptional activity in the advancement of the mission of Valparaiso University.

AWARDS AND PRIZES. An annual award is presented by the Beta Nu Chapter of Pi Sigma Alpha, national honorary political science organization, to the outstanding political science major voted by the faculty of the Department of Political Science.

An annual scholarship award is presented by Rentner Senate of the Delta Theta Phi Law Fraternity to the pre-law student who, at the completion of his/her seventh semester, has the highest average in all collegiate work taken at Valparaiso University, provided that he/she has completed at least four of the seven academic semesters at Valparaiso University.

The Walther M. Miller Memorial Prize is awarded to a student who has majored in German and demonstrated excellence and promise in German

studies at Valparaiso University. This prize is awarded in memory of Dr. Walther M. Miller, Distinguished Service Professor of German Language and Literature.

Helms
THE VALPARAISO UNIVERSITY FEDERAL CREDIT UNION. This is an organization whose membership is open to all students, members of the faculty, and employees of the University. Its purpose is to promote thrift and to provide a source of credit for its members. To become a member, one must subscribe for at least one five-dollar (\$5.00) share of stock. The purchase of one share of stock entitles one to all the rights and privileges of full membership. Interest on loans is charged at the rate of three-quarters per cent ($\frac{3}{4}\%$ = 9% A.P.R.) to one and a quarter per cent (1.25% = 15% A.P.R.) per month on the unpaid balance. This association is governed by a board of directors elected by the membership and is supervised by The National Credit Union Administration of the United States Government. All accounts up to \$100,000.00 are insured by the National Credit Union Administration.



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David E. Bodenstab
M.S., St. Louis University
Stephen E. Dieter
Ph.D., Northern Illinois University

Thiemo Wolf, Jr.
Ph.D., New York University

RB

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Jerry Knippa	Dallas, TX	1981

**Term
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Rev. & Mrs. Paul Thielo	Fairview Park, Ohio
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STATISTICS.

PT

Summary of Attendance.

	Summer Session 1980-1981	Fall Semester 1980-1981
The College of Arts and Sciences		
Freshman	30	463
Sophomore	38	483
Junior	57	425
Senior	81	461
Special	48	41
Total	254	1,873
The College of Business Administration		
Freshman	9	204
Sophomore	17	227
Junior	28	188
Senior	35	192
Special	15	7
Total	104	818

PT

The College of Engineering

Freshman	3	151
Sophomore	5	139
Junior	10	119
Senior	15	107
Special	4	3
Total	37	519

The School of Law

First Year	—	156
Second Year	—	130
Third Year	—	74
Special	—	1
Total	53	361

The College of Nursing

Freshman	5	101
Sophomore	8	98
Junior	4	70
Senior	1	64
Special	6	2
Total	24	335

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Evening Division

Undergraduate	—	109
Graduate	132*	164
Total	132*	273

*Day Program

Off-Campus Divisions

Cleveland	62	113
Ft. Wayne	40	120
St. Louis	45	120
Total	147	353
Grand Total	997	4,532

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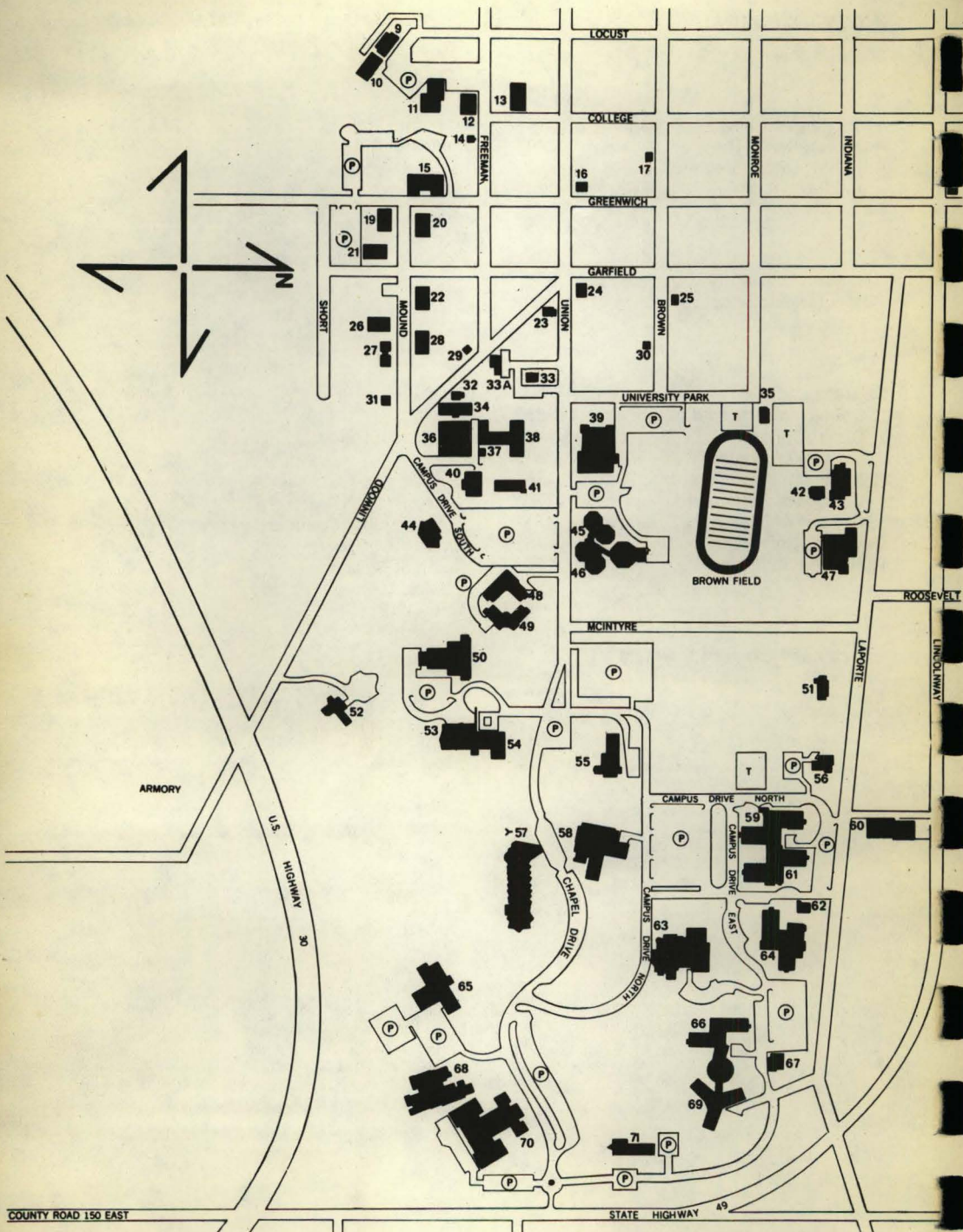
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- 37 Kroencke Power House
- 38 Kroencke Hall & Theatre
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